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ABSTRACT

Fourteen articles are presented in this volume on contrastive linguistics. The articles and authors are as follows: "A Brief Falsificationist Look at Contrastive Sociolinguistics" (K. Janicki); "The Locus of French Gender Control" (W. A. Bennett); "On the English Perfect Tense and Current Relevance Implicatures" (J. R. Canavan); "Teaching French to Spanish Speakers: Some Typical Patterns of Error" (P. B. Stevens); "The Passive and Passivizability in Danish and German" (O. Lauridsen); "Equivalence and Translatability of English and Arabic Idioms" (M. Awwad); "Universals in Interlanguage Phonology: The Case of Brazilian ESL Learners" (L. M. Dreasher and J. Anderson-Hsieh); "Social Relations and Sex Stereotyping in Language" (A. Martynyuk); "A Contrastive Study of Male and Female Occupational Terms in English and Russian" (A. Martynyuk); "The English Palatalization Rule in Second Language Acquisition" (J. Rysiewicz); "Collocations: The Missing Link in Vocabulary Acquisition Amongst EFL Learners" (R. F. Hussein); "Principles for a Contrastive Phonotactics: The Hebrew Triconsonental (CCC) Root System a Case in Point" (Y. Tobin); "English/Russian Nominal Sentences-Expressives: Contrastive Analysis" (I. Frolova); and "A Working Framework for a Pedagological Contrastive Grammar of Persian and English: From Sentence to Discourse" (L. Yarmohammadi). A review article by J. M. Doherty on Van Voorst's "Event Structure" concludes this issue. Contains references following each article. (LB)

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THE POLISH-ENGLISH CONTRASTIVE PROJECT

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A BRIEF FALSIFICATIONIST LOOK AT CONTRASTIVE SOCIOLINGUISTICS

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There are two reasons for which I have decided to write this brief paper. (1) One is that contrastive analysis has recently seemed to be losing its clout, and in connection with this, I have been thinking about why that actually may be the case. In a part of what follows I will address this question. (2) The second reason for writing this paper was my desire to look at contrastive analysis (especially its sociolinguistic version) from the point of view of the falsificationist philosophy of science, which I happen to have a particular respect for. Even if the view expressed in (1) above is wrong (i. e., the view that contrastive analysis is losing its clout), as some readers might want to argue, (2) still remains valid. (2), i.e., a falsificationist look at contrastive sociolinguistic analysis, is the major goal of this paper.

The paper consists of two parts. In Part I I very briefly present the relevant (to my analysis) fundamental tenets of K.R. Popper's falsificationist philosophy of science (Popper 1957, 1959, 1963) which I adopt for my work in sociolinguistics. In Part II I attempt an evaluation of contrastive sociolinguistics from the point of view of Popper's falsificationist philosophy, and, finally, I suggest reasons for the declining interest in contrastive analysis.

PART I – POPPER'S FALSIFICATIONIST PHILOSOPHY OF SCIENCE

(1) All observation is theory laden.
(2) Knowledge gets accumulated through a continuous process of conjectures and attempted refutations.
(3) Theories should be formulated in a manner that allows their falsification.
(4) Scientists should continually try to falsify, and not verify theories.
(5) Scientists should formulate universally valid hypotheses; the final decision, however, on whether the scientist addresses universal or spatio-temporally restricted hypotheses rests with the individual researcher.

(6) The social sciences should be treated primarily as following the same methodological pattern as the natural sciences, in that in both conjectural hypotheses are formulated and refutations attempted. This is in spite of the differences within and across these two.

The above constituents of Popper's philosophy, and others, have raised a number of doubts and objections. In my opinion, Popper has convincingly answered all of the criticism directed at his views (Popper 1983), which, interestingly, was partly due to misunderstandings. For instance, he clearly defended himself on the issue of how to decide whether a theory has been ultimately falsified. In this respect, he showed that falsification as a logical term has to be distinguished from falsification as a practical social act; hence, it is researchers themselves who have to decide that a given theory has been falsified or not (Carr 1990).

Popper's general principles for proceeding in science easily translate into those pertaining to linguistics. As my own view of language is social, what follows is meant to apply to sociolinguistics, although I believe that large parts of what I say below are also relevant to other types of linguistics. Thus, in general I address here what is widely known as contrastive linguistics. However, I wish to specifically take a falsificationist look at what is frequently referred to as contrastive sociolinguistics.

PART II

In what follows I wish to show how the falsificationist philosophy could be applied in contrastive sociolinguistics. I primarily want to concentrate on the fundamental principles of contrastive sociolinguistics rather than merely on a single working instance. The primary reason for which I would like to take up the question of sociolinguistics is that, among others, as I mentioned earlier, contrastive (socio)linguistics has recently seemed to be losing its impact. As opposed to the 60-ies, 70-ies, and early 80-ies of this century (when interest in contrastive linguistics was significant) the last few years have shown a gradual decline of attention (measured in terms of, for example, conference organizing, conference participation, publications, private communication). In the meantime (especially in the late seventies and early eighties) contrastive sociolinguistics (by some authors referred to as contrastive pragmatics, by others as contrastive pragmalinguistics) has been a visible enterprise (especially in Europe; in Finland, West Germany, France, and Poland). As contrastive linguistics has always had both diehard proponents and enemies, I think it might be of some interest to see how the philosophical principles advocated above solve the contrastive sociolinguistics problem by which I mean the legitimacy or illegitimacy of distinguishing between sociolinguistics on the one hand and contrastive sociolinguistics on the other. In other words, I will try to discuss briefly the basic tenets of the undertaking known as contrastive studies (the sociolinguistic orientation). The presentation to follow should be thus treated as my own view of contrastive sociolinguistics emerging as a corollary of accepting the philosophical assumptions listed above. I understand contrastive sociolinguistics to be a working perspective toward language conceived of as a social phenomenon. Like in the case of contrastive, nonsocial linguistics, contrastive sociolinguistics analyses have been carried out for both theoretical and practical purposes. Independent of the type of objectives set forth one gets the impression that many a contrastive linguist (sociolinguist included) treat the discipline as in some way different from linguistics (or sociolinguistics) proper. This is particularly salient if one accepts the by now classical view of contrastive linguistics where the primary objective of analyses is to compare languages, or rather fragments thereof. In spite of the different philosophical assumptions underlying contrastive nonsocial linguistics and contrastive sociolinguistics (cf. Janicki 1984, 1985), I feel tempted to conclude that at least one characteristic is shared by the two, namely, the conviction on the part of many contrastive (socio)linguists that it is basically legitimate to promote contrastive (socio)linguistics as *in some principled* manner distinct from (socio)linguistics proper. In what follows I would like to show that while for some practical or organizational-institutional reasons such a distinction may not only be possible but also most welcome, for epistemological objectives to be reached within the falsificationist paradigm of linguistics such a division is not necessary at all. I will limit my discussion below to contrastive *socio*linguistics. I believe, however, that several if not all conclusions may be safely extrapolated to non-social contrastive linguistics as well.

In Janicki 1985 I expressed the view that contrastive sociolinguistic analyses should be viewed and assessed differently depending on whether the objectives underlying them are practical or theoretical ones. While the practical objectives may be many (e.g., foreign language learning/teaching, translation, interpretation), the theoretical macro objective is in fact one: expounding language. With the theoretical objective in mind (for a discussion of the practical objectives I refer the reader to Janicki 1984 and 1985) the question arises of whether it is advisable to maintain or promote the distinction between contrastive sociolinguistics and sociolinguistics as such. When the question is approached from the point of view of the philisophy of linguistics that I advocate above, the answer is *no*. While, as some may want to rightly argue, the distinction is not harmful, neither, I think, is it necessary, or, what is more important, illuminating.

If one would like to view contrastive sociolinguistics as an extension of contrastive nonsocial linguistics which

> "can be roughly defined as the systematic study of two or more languages, specifying all the differences and similarities holding between those languages in all the language components" (Fisiak et al. 1978:9),

one would expect for socially realistic fragments of at least two languages to be compared. As for the sociolinguist macro entities such as Polish and English are too large to contrast, one could thus expect comparisons of sociolects, sex-related varieties, age-related varieties, etc. The fundamental question that comes to the fore at this point is: "what for?". In other words, why would one want to compare a theoretically motivated age-related variety of English with its corresponding variety of Polish for example?

Looked at from the point of view of the philosophy laid out above such comparisons simply do not need to be made, unless, importantly, the universe of interest is deliberately limited to two or more languages, in which case systematic comparison of two or more languages may perhaps contribute something to developing a theoretical stance (see also below). In other words, the situation is this: it is the sociolinguist's task to propose solutions to problems wherein descriptions are attempted and explanatory conjectures formulated. Provided a descriptive or explanatory hypothesis is meant to be universally valid, any language may provide reasons for corroborating or falsifying the hypothesis. (In fact many linguists to date, who have not referred to themselves as contrastive linguists, have used data from more than one language without any systematic contrasting of a pair of systems, and it has been so, it seems, because universal hypotheses may be assessed independent of whether one language is considered, a comparison of two, or possibly a comparison of more than two). If a universal claim is made pertaining for example to the article as a grammatical category in social context, it simply does not matter how for instance the article system in English compares to that in German. What does matter is how the empirical data collected on English, or on German (or on any other language for that matter) feeds back the theoretical statement concerning the article. Looking at the sociolinguist's work in such a philosophical perspective, laborious and meticulous comparisons of fragments of two languages might be viewed as simply superfluous.

My reasoning above should bring the reader to the conclusion that any strong version of contrastive sociolinguistics (= systematic comparisons of fragments of two languages in social context) pursued for theoretical/epistemological purposes incorporating universal statements is simply untenable. A weak version of contrastive sociolinguistics, understood as resorting to more than one language in the evaluation of hypotheses is by all means not only possible but also necessary; but in that case the label *contrastive sociolinguistics* may in fact be a little far-fetched.

As I argue on a different occasion (Janicki 1990) in addition to universal hypotheses sociolinguistic problems and hypotheses which are spatio-temporally restricted are also valuable for the sociolinguist, primarily as they potentially lead to universal problem solutions and universal hypotheses formulations. In the light of this fact, systematic cross-linguistic comparisons (e.g., sequencing in telephone conversations in French and Spanish) may function as tests for hypotheses that are spatio-temporally restricted (e.g., hypotheses that pertain to sequencing in Romance languages). What is extremely important, however, is that such comparisons must be principally seen as testing hypotheses. In other words, comparisons should not constitute a goal in itself but serve as techniques for bringing out empirical data feeding back the theoretical statement. In spite of all the above, it is my conviction, however that systematic cross-linguistic comparisons are not an extremely convincing technique, and this is because they require more effort than is in fact needed. Let us consider the following example:

Spatio-temporally restricted hypothesis: In standard varieties of Slavic languages word stress is placed on the penultimate syllable.

Testing the hypothesis: Polish corroborates and Czech falsifies the hypothesis. The way the hypothesis is formulated it is clearly wrong. It is wrong as long as one standard variety of a Slavic language falsifies it.

Question: Why would we need (in the light of our hypothesis, of course) a systematic comparison of the stress patterns in Standard Polish and Standard Czech?

It is clear to me that testing hypotheses such as the one above does not require any systematic comparisons of two languages (no matter how much idealized).

Moreover, such comparisons do not seem to be necessary even if theoretical claims are limited to two selected languages, for instance,

Spatio-temporally restricted hypothesis: In German and in Polish, in private telephone conversations the distant caller identifies himself/herself.

Testing the hypothesis: German corroborates the hypothesis; Polish falsifies it.

Question: Do we need any detailed comparison of (fragments of) the two languages to either corroborate or falsify the hypothesis? The answer is a clear *no*, again.

It follows that comparisons as such do not contribute much (if anything) to the value of data that, independent of such comparison, are used for testing hypotheses.

All in all, from the point of view of the philosophy of sociolinguistics that I advocate above, any strong version of contrastive sociolinguistics, understood as promoting principled comparisons of two or more sociolinguistic systems, should be abandoned. As long as falsifiable claims are formulated 'contrastive data' are not required for such claims to be supported or weakened. This conclusion holds true for both universal claims and for those that are spatio-temporally restricted.

The opinion above should by no means lead the reader to the conclusion that contrasting languages is utterly useless. Such contrasting may prove valuable not only for practical purposes (e.g., language teaching) but also for theoretical purposes, in that in the latter case mere comparisons may for instance lead to arriving at new theoretical solutions or at identification of new problems. It must be remembered, however, that from the philosophical perspective which I promote in this paper, contrasting languages should not be treated as an end in itself, and should be viewed as basically redundant for any falsifiable theoretical statement to be tested.

In conclusion, if the reader agrees with the view that contrastive linguistics in general and contrastive sociolinguistics in particular have indeed been recently losing their force, then at least two reasons may be suggested as responsible for this state of affairs:

(1) For universally valid hypotheses to be tested no systematic comparisons of languages (or fragments thereof) are necessary. Some (or many) contrastive linguists may have realized that for quite some time they have been doing more than was necessary. The time may have come to stop doing this.

(2) Some linguists may have realized that contrasting languages should not be an end in itself. If (1) and (2) are accepted there is not in fact much, at least from the falsificationist point of view, that the contrastive linguist is left with.

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THE LOCUS OF FRENCH GENDER CONCORD[1]

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The most common agreement rules for past participles in French seem simple enough, at least when verb is a copulative. All but one of the sentences in (1) illustrate the rule of agreement with leftmost NP[2] within the same major clause

1. a. La femme est partie
    b. Elle et sa fille sont sorties
    c. Elle et son mari s'en sont allés
    d. Lui et sa femme sont arrivés
    e. La concierge semble fatiguée
    f. La salle est bondée
    g. La vendeuse est agacée (par son mari)
    h. Toute femme [[qui est] intelligente] est avantagée
    i. La cerise a mûri*e

When the verb is *être* or one of the other copulative verbs, such as *devenir*, *paraître*, or *sembler* as in (1e)[3], the agreement rule affects not only past participles but adjectives too, as in (1e,f). The rule includes the passive (cf. 1g). It also explains the gender marking in (1h) of the embedded remnant *intelligente*. The "missing" item can only be a copulative. The lone ungrammatical sentence (1i) is faulted by the non-copulative nature of its verb.

The only complexity in cases such as those exemplified by most of (1) is to distinguish the single gender constituency of such pairs of nouns as those at leftmost position in (1c,d) compared with (1b). When nouns are thus conjoined the feminine

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[1] I am grateful for the incisive comments of Jacques Durand, and other friends and colleagues, on an earlier version of this paper. The flaws which remain are mine alone.

[2] NP is here intended to indicate nouns, noun phrases and pronouns. My bias towards feminine examples results from the fact that in French the masculine is morphologically unmarked.

[3] Lyons (1968:323) 'the 'verb *to be*' in such sentences as *Mary is beautiful* (unlike the verb *cook* in *Mary cooks fish*) is in contrast with only a limited set of other 'verbs', notably *become*. The occurrence of *become* rather than *be* depends upon the selection of the 'marked' rather than the 'unmarked' term in yet another grammatical opposition.'

marking of agreement is blocked by the presence of masculine (unmarked) NP. Here we have a split between number[4] and gender, since in none of the three cases in (1) of conjoined subject NPs could the past participle be marked as singular. The operation of number concord and that of gender must take place at different levels, where there are different structural representations for multiple subject NP. Yet grammarians hold that "the inflexion of the adjective is clearly a matter of surface structure." (Lyons (1968:323)). There is no doubt (cf. Chomsky (1986b:158)) for argument] that number agreement must *follow* passivization. The assignment of number can operate with syntactic information about the degree of bracketing, distinguishing (2a,b)

2. a. [[Jean] [[et] [Marie]]]...
   b. [[Jean] [et] [Marie]]...

but information about gender is derived only from the lexical categories. This can be shown easily enough by such idiosyncratic examples as *la victime*, for any victim, or *le maréchal,* for any marshal or blacksmith.

If the verb is not a copulative, the French past participle will agree only with a NP which has been moved to a position immediately to the left of the verb within the same clause. This is illustrated in (3b–d)

3. a. La prof a loué l'étudiante
   b. L'étudiante que le professeur a louée
   c. Le professeur l'[= l'étudiante] a louée
   d. L'étudiante s'est louée

There is no agreement of past participle in (3a), even though, as in (3b), there is in the surface a NP to the left. It is not simply a matter of differential case-assignment (between nominative and accusative), for a nominative can be the antecedent for gender marking, if the verb is copulative, just as the (moved) accusative can be the antecedent if the verb is otherwise. Note that it is the type of verb which is responsible for assigning case. And it is the type of verb, the categories which it selects, which determines movement. Where there is movement there is gender-marking.[5] Agreement in (3b–d) is triggered by the leftward movement of the NP in those sentences.

Such movement is not without distortion, and the Projection Principle discussed by Chomsky (e.g. 1986a) aims to model the retention of that structure necessary for interpretation. Where movement is concerned it is argued that a *trace* remains in the original site of the item moved. In (4) are repeated the sentences of (3), but now with an indication (as *t*) of the *trace* of items which have been moved to the left in the development of surface structure. In (3a) there has been, of course, no movement – and no agreement of past participle

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[4] I am not here referring to lexical number, which in French has a not very important role. I know of only 17 nouns, such as *la gage/les gages, le ciseau/les ciseaux, la nouille/les nouilles, la vue/les vues*, where number makes a difference to the meaning of a noun. In at least a third of the cases, the difference is not commonly functional, e.g. *l'appât/les appas or l'assise/les assises.*

[5] The difference between *copulative* and *transitive* is the one that has validity for the determination of binding.

4. a. L'étudiante que le professeur a louée *t[+fem]*
   b. Le professeur l[+fem]'a loue *t[+fem]*
   c. L'étudiante s[+fem]'est louée *t[+fem]*

It is common to assume that the appearance of the *clitic*, the pre-verbal object pronoun, occurs at a late stage in the generation of a sentence. But Kayne usefully pointed out (1971:241) that "linguistic theory must be constrained so as to disallow..the selection of a grammar in which the distribution of anaphoric pronouns is determined by rule converting full NP's to pronouns." Base-generation of clitics is the only basis for predicting the occurrence of unstressed forms (*le, la, les*) rather than the stressed forms (*lui, elle,eux, elles*), for if the pronoun were formed before movement then it would be the stressed pronoun which would occur in clitic position. And such a sentence would be ungrammatical.[6]

The explanation of passives such as (1g) is a particularly important argument for the use of abstract elements such as *trace* and *empty categories* (cf. Chomsky 1986a). The sentence instanced as (1h), given again as (5a), depends for interpretation on the recognition of the *empty category*: *e*. Chomsky (1986b:157) proposed for the passive sentence *John was killed* the structure given here as (5b)

5. a. La femme [[e̲] intelligente] est avantagée
   b. [NPe̲] INFL be [VP [V kill][NP John]]

It was argued by Chomsky (at the same place) that the rule which assigns the passive morpheme, eventually to produce *killed* in English, must be followed by movement.[7] This movement must leave a *trace*. In (6) there is a similar structure, but this time with French lexis and with *trace* noted.

6. [NP Jean[+fem]] INFL être [VP [V tu[e] par [NPe̲]]]

There is a strikingly close relationship in all these cases, and even the passive, with its copulative verb, can be included. Given this, it appears that the gender marking of past participles, even if not of adjectives, takes place at the locus of *trace*, i.e. is determined by movement, which precisely characterises the relation between D(eep)-structure and S(urface)-structure (cf. Chomsky (1986b:155–56)). The *trace* with which the gender marking of past participles appears to be associated depends for its significance on the features which it has inherited from the lexical configuration of the item which has been moved. Without this degree of government there can be no proper binding relation between the *trace* and its antecedent, the item moved leftwards. The value of the lexical configuration will depend on the θ–role of the lexical item. The *projection principle*, outlined briefly earlier, models the maintenance at all levels of the grammar of the lexical definitions which determine D–structure. A verb such as *tuer* has the lexical entry in (7)

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[6] It is interesting to note that movement is not inevitable, although Jean *elle a vue is ungrammatical, *Jean a vu elle* (without movement) is simply very colloquial. So, pronominalization without movement is (just) grammatical, whereas movement of an already-formed post-verbal pronoun to clitic position cannot take place.

[7] Essentially the argument is that *John* cannot remain as a nominative in the position which is typically case-marked as direct object. It would be hard to accept this fully, given the presence of the copulative verb in the structure of the French passive, if it were not for the peculiar nature of the copulative verbs. In Lyons (1968:322) the traditional view was reinforced that the verb *be* is solely "the *locus* in surface structure for the marking of tense, mood and aspect."

7. [___ NP] Agent, Patient.

The movement of NP (the Patient) in the course of syntactic development triggers the agreement of a past participle. This agreement of gender occurs only where the perfect tense is involved. Gender marking and tense assignment must be equally present in the base.

It has been shown that the passive, although characterised by its use of a copulative verb, includes movement to the surface subject site. The lexicon contains verbs with their arguments (Agent, Patient, Beneficiary, etc.) in logical form. The generation of surface structure requires the movement of subjects (and of objects to preverbal position in French). The sentences of (1) thus have a source which involves movement of the subject NP. In this light the evolution of [*"être"*, NP___] <Referent, Predicate> or of *"tuer"*, ___NP] <Agent, Patient> are alike, the landing site of each being that of the nearest NP to the left.

The sentences of (8) are notably different from one another in their concord. This difference can be motivated only by the conditions in the dependent clauses

8. a. Jeanne s'est vue [transformée par son mariage]
   b. Jeanne s'est observé [insulter ses meilleurs amis].

Whereas in (8a) there is past participle agreement with the clitic (identical in its reference with the subject), in (8b) no such expected concord has operated. In (9) are shown the structural relations.

9. a. Jeanne s[+ fem]'est vu[+ fem] t[+ fem] transformé[+ fem t[+ fem]
   b. Jeanne$_i$ s[+ fem] 'est observé [PRO$_i$ insulter]

In (9b) *PRO*, the null subject of an untensed verb, is not acting primarily as *trace*, and there is therefore no theoretical justification for the gender marking of the past participle. It is only the close linking of the verbs which allows the sharing of *PRO*. In (9a), however, there is once again the demonstration that it is *trace* which licenses the gender marking of the predicate. Thus gender, unlike number (and even tense, for how else than by surface structure could we explain the concordance rules of French?), gender plays a uniquely deep role in support of lexical projection.

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ON THE ENGLISH PERFECT TENSE AND CURRENT RELEVANCE IMPLICATURES

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BACKGROUND

In numerous descriptions[1] the English Perfect Tense is considered to denote a past situation[2] which has *current relevance*. What this term means is that the *results* or *effects* of a situation still hold at the moment of speaking, the present time. Thus, by uttering 1) or 2)

1) I have broken my arm
2) The taxi has arrived

I also imply that the effects of *breaking my arm* or *the taxi's arrival* still hold. According to such treatments of current relevance, it is the Perfect which triggers the implications in 3) and 4)

3) My arm is (still) broken
4) The taxi is now here (and waiting)

That implicatures obtain for many types of statement and that their messages can occasionally be fairly reliably predicted is not to be questioned. To do so would be to rob English – and other languages as well – of a device which makes it unnecessary to spell out every single bit of information which one chooses to communicate. Rather, as I have pointed out elsewhere (Canavan 1983:38–41) the problem lies in rooting the trigger for implications of current relevance in the choice of a tense, in particular for English, the Present Perfect. In this paper I hope to show that implicatures of current relevance depend on the notion of a *temporal gap*, a notion associated only partially and unequally with the Present Perfect Simple and Present Perfect Continuous. I shall claim that the entailment of a temporal gap notion – not morphological entities – is a condition for current relevance implicature.

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[1] Sweet (1892, 1898:98); Twaddell (1968:8); Leech (1971:30–35); Comrie (1976:56–58; 1985:*et passim.*)
[2] Following recent practice I use the term *situation* to cover *event, act, activity*, etc.

Where no temporal gap notion obtains, implicatures of current relevance will be invited. Conversely, where such a notion obtains, implicatures of current relevance will be blocked. Finally, where the entailment of a gap notion is overridden by appropriate adverbials, implications of current relevance may also obtain for Imperfect as well as Perfect assertions. Supplementary to my earlier arguments (*loc. cit.*) I shall claim that predictable messages involving specific *effects* or *results* trace to the lexical verb. This will all be based on an outline of the basic meanings of inflections and compatible sets of adverbials.

MEANING OR IMPLICATURE

In *Tense* (1987:23) Bernard Comrie characterizes the recognition of the difference between the *meaning* of a linguistic term and implicatures which can be established "in a particular context" as "One of the major advances in recent semantic theory". He cites Grice (1975) and Lyons (1977:592–96), in particular the Gricean principles of conversational implicature. Following Grice he then illustrates this "major advance" with 5)

5) It's cold in here

where the (conversational) implicature is the speaker's desire to have the window closed. In other words 5) only implies, but does not state, the speaker's true communicative intent. Again following Grice, Comrie notes that implicatures can be cancelled, as in 6),

6) It's cold in here, but *please don't close the window*. I enjoy the cold.

but that meanings cannot be cancelled, as we see in the contradiction in 7).

7) It's cold in here, but please don't close the window, *it's hot in here*.

Armed with this distinction, Comrie then contrasts the Perfect and the Simple Past as follows: The Perfect carries an "element of meaning" (1985:25) called current relevance, while the Simple Past does not. Interestingly enough, Comrie also points out that 8)

8) John used to live in London

provokes the implication that "John no longer lives in London", though this can be cancelled by 9) or 10).

9) ... and he still does
10) ... and, as far as I am aware, he still does

What is interesting – within Comrie's approach, that is – is that he uses an Imperfect inflection to illustrate an implicature which is very similar to current relevance implicatures, for it involves the *results* or *effects* of a past situation. Taken together, Comrie's examples provoke the suspicion that current relevance is not an "element of meaning" of the Perfect but an implicature which obtains independently of particular inflections.

TESTS

For the moment let us set up the following hypothesis: If current relevance is an element of the meaning of the Perfect tense, it should hold for any assertion in this inflection.[3] That is, for all assertive uses of the Perfect (Simple) there should be a corresponding present-tensed sentence which expresses the currently relevant message.

To avoid the risk of over-generalization from too small a corpus I shall test this hypothesis on the basis of the verb taxonomy in Quirk *et al.* (1985:201). This taxonomy (which is serviceable but not without its problems) is outlined here.

A. STATIVE
1. Quality
be tall, *have two legs*, *be a mammal*
2. State
be angry, *be ill*, *love* (t), *resemble* (t), *think* (that), *own* (t)

B. STANCE[4]
live, *stand*, *lie*, *sit*

C. DYNAMIC
1. Durative
a. Nonconclusive and durative
i. Nonagentive: GOINGS–ON.
rain, *snow*, *boil*, *shine*, *glow*
ii. Agentive: Activities
drink, *sew*, *write*, *hunt*, *play* (t), *talk*
b. Conclusive and durative
i. Nonagentive: PROCESSES
ripen, *grow up*, *improve*, *separate*, *turn red*
ii. Agentive: ACCOMPLISHMENTS
write (t), *eat* (t), *drink* (t), *fill up* (t), *discover* (t)
2. Punctual
a. Nonconclusive and punctual
i. Nonagentive: MOMENTARY EVENTS
sneeze, *explode*, *blink*, *flash*, *bounce*
ii. Agentive: MOMENTARY ACTS
tap (t), *nod* (t), *fire* (a gun), *kick* (t)
b. Conclusive and punctual
i. Nonagentive: TRANSITIONAL EVENTS
drop, *receive* (t), *catch* (t), *take off*, *arrive*, *die*
ii. Agentive: TRANSITIONAL ACTS
sit down, *catch (a ball)*, *shoot* (t), *begin* (t), *stop* (t)

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[3] By analogy, "Pastness" is indisputably an element of the meaning of the Perfect and holds for assertions in Perfect inflections.

[4] "Intermediary between the stative and dynamic categories" (Quirk *et al.* 1985:205).

Although Quirk *et al.* (1985:200) claim that verb meanings (more specifically their classifications, which they undertake here on a semantic basis) cannot always be established *"in vacuo"*, most of the verbs make at least some sense within the minimal frame below. The point, of course, is to test potential implications, not the taxonomy.

The current relevance notion rests on the assumption of *effects* or *results*. It is therefore reasonable to assume that any implication deriving from a Perfect (Simple) assertion will have a close semantic relation to the Lexical Verb. Accordingly, the first significant test involves the minimal frame "He/It has VERBed" and an equally minimal explication of the possible effects or results which the verb provokes. (The references follow the outline of the Quirk taxonomy.)

	It/He has...	*RESULTS/EFFECTS*
A.1.	BEEN tall	situation past
	BEEN ill	situation past
	LOVED (Maggie)	situation past
	RESEMBLED (Rambo)	situation past
	THOUGHT (that...)	situation past
	OWNED (a fortune)	situation past
B.	LIVED (in Georgia)	situation past
	STOOD (in bed)	situation past
	LAIN (in bed)	situation past
	SAT (in the den)	situation past
C.1.a.i.	RAINED	wetness now
	SNOWED	snow now
	BOILED	heat past
	SHONE	brightness past
	GLOWED	brightness past
C.1.a.ii.	DRUNK	situation past
	SEWN	situation past
	WRITTEN	situation past
	HUNTED	situation past
	PLAYED (the piano)	situation past
	TALKED	situation past
C.1.b.i.	RIPENED	present degree of ripeness
	GROWN UP	present degree of maturity
	IMPROVED	present degree of improvement
	SEPARATED	present state of separation
	TURNED (red)	present state of (redness)
C.1.b.ii.	WRITTEN (s.th.)	script extant
	EATEN (his peas)	situation past/peas gone
	DRUNK (maté)	situation past/experience
	FILLED UP (his belly)	present fullness
	DISCOVERED (s.th.)	present state of knowledge

C.2.a.i.	SNEEZED	situation past
	EXPLODED	situation past/present state of destruction
	BLINKED	situation past
	FLASHED	situation past
	BOUNCED	situation past
C.2.a.ii.	TAPPED (a keg)	situation past/(keg) now open
	NODDED (his head)	situation past/present assent (in context)
	FIRED (a gun)	situation past
	KICKED (the dog)	situation past
C.2.b.i.	DROPPED	transition past
	RECEIVED (junk mail)	reception past
	CAUGHT (?the bus)	accomplishment past
	TAKEN OFF	departure past (now gone)
	ARRIVED	transition past (now here)
	DIED	transition past (now dead)
C.2.b.ii.	SAT DOWN	transition past (now sitting)
	CAUGHT (a ball)	situation past (accomplishment)
	SHOT (a duck)	dead duck
	BEGUN (a fight)	war again!
	STOPPED (a fight)	peace at last!

The most significant results of the test are that implicatures do not hold for all verbs, hence not uniformly for the Perfect Simple. There seem to be no reasonable, lexically motivated effects or results adducible for the State and the Stance classes of verbs. Here the only related message that makes sense is that the situation belongs to the past. This, of course, is merely the explication of the basic temporal message of the Perfect inflection, not the formulation of an implicature. With the other classes we either have the same nondescript "situation past" message or we have an implication involving a new, related state. In each case the implication is not inflection-rooted but derives directly from the semantics of the lexical verb.

Obviously the test above is highly artificial, for many of the verbs listed rarely if ever occur *in vacuo*. However, varying the context in which the verbs occur yields varying implications. One example is shown in 11):

11a) I have lived here
  → $^{?}$I still live here
11b) I have lived here *before*
  → $^{?}$I still live here
  → $^{?}$I am living here for a second time
11c) I have *never* lived here
  → I do not live here now
11d) I have *never* lived here *before*
  → I live here now

If a basic "element of meaning" in the inflection triggered the specific implication, such variations should not be possible. The fact that variations *are* possible suggests that differing implications may also be dependent on factors which lie outside of the inflection.

Since the Perfect can be inflected for Continuous forms the test must be repeated for the frame "He has been VERBing" *or* "It has been VERBing" and the test "The results/effects are ...". To the extent that they take a Continuous inflection, all of the verbs in the outline admit implications for continuance or not into the present. From the point of view of *results* or *effects* of the particular situation we must again focus on the semantics of the Lexical Verb and test within as minimal a frame as possible. Some examples:

	It/He has been...	*RESULTS/EFFECTS*
B.	LIVing (in sin):	Sinfulness (up to now)
	STANDing (in the rain):	Exposure (up to now)
	SITTing (on the pot)	Indisposition (up to now)
C.1.a.i.	RAINing:	Wetness (up to now)
	SHINing:	Situation (up to now)
C.1.a.ii.	DRINKing:	Diminished thirst (up to now)
	TALKing:	Situation (up to now)
C.1.b.i.	RIPENing:	Degree of ripeness (up to now)
	IMPROVing:	Transition (up to now)
C.1.b.ii.	WRITing (s.th.):	Script (partially) extant now
	DISCOVERing (s.th.):	Transition, knowlegde (up to now)
C.2.a.i.	SNEEZing:	Iterative situation (up to now)
	BLINKing:	Iterative situation (up to now)
C.2.a.ii.	FIRing a gun:	Iterative situation (up to now)
	KICKing it:	Iterative situation (up to now)
C.2.b.i.	DROPPing:	Motion downward (up to now)
	TAKing OFF:	Preparation for transition
C.2.b.ii.	SITTing DOWN:	Preparation for transition
	BEGINNing s.th.:	Preparation for transition

All of the effects or results involve situations which are predictable from the Lexical Verb. The Durative verbs (C.1) denote continuation of the situation *up to now*; the nonconclusive punctual verbs (C.2.a.) denote situation interativity *up to now*; and the conclusive punctual verbs (C.2.b.) denote preparation *up to now* of the situation which is to be concluded. In all cases the notions of incompleteness and pastness trace to the Continuous inflection but the implications of specific *results* or *effccts* of the predication trace to the lexical verb.

The final test bases on Comrie's sentence 8), where the implications are claimed to be "...but he no longer lives there" or "...and he still does". This departs from the notion of *effects* or *results* to one of *continued activity*. Although this is not the usual claim of current relevance adherents, each verb can be tested within the frames "He/It has VERBed" and "He/It has been VERBing" to see if either or both of the implications "He/It is *still* VERBing" or "He/It is *no longer* VERBing" obtains. I shall not list the results here, but where the test assertion makes sense, all of the verbs are ambivalent between the "still" and "no longer" implications. I take this to mean that any notion of continued activity which may obtain in a particular context is an implicature, not a meaning, for the test proves that they are cancellable.

Let us now look at some of the sentences used by current relevance advocates to prove their point.

12) John has broken his leg
→ *His leg is still broken* (Comrie 1985:24)
13) The taxi has arrived
→ *it's now here* (Leech/Svartvik 1975:66)
14) Her doll has been broken
→ *it's still not mended (loc. cit.)*
15) He has been given a camera
→ *he now has the camera* (Leech 1971:34)
16) I've recovered from my illness
→ *I'm now well again (loc. cit.)*
17) His sister *has been* an invalid all her life
→ *she is still alive* (Quirk *et al.* 1972:91)
18a) Peter *has injured* his ankle and it's still bad (*loc. cit.*)
18b) *Peter *has injured* his ankle but it's now better (*loc. cit.*)

Sentence 17) has nothing to do with current relevance in the sense of *effects* or *results*. Rather the putative implicature simply explicates the frequently observed (but infrequently explained) rule that the subject of a Perfect inflection must be alive. And it is at least questionable that 18b) is anomalous, as Quirk *et al.* claim, for "it is better now" could be interpreted as a cancellation of "and it's still bad" in 18a), which, presumably, expresses the implicature derived from the resultative verb *injure* in "Peter has *injured* his ankle".[5] As for sentences 12)–16), each involves a resultative or conclusive verb, and each verb entails some *effects*: *to BREAK* → *be broken*; *ARRIVE (somewhere)* → *be* there; *to be GIVEN* something → to *have* it; to *RECOVER* → *be healthy*. Here it is not the tense but the lexical verb which triggers the specific implicature.

Since, as Grice points out, meanings cannot be cancelled, we would expect that inflection-based notions of *effects* or *results* could not be cancelled. Yet cancellation is the case with frequency modification as in sentences 20)–24):

20) John has broken his leg several times
→X His leg is still broken
21) The taxi has often arrived late
→X it's now here
22) Her doll has been broken several times
→X it's still not mended

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[5] In a private discussion Dr. Laurence Kane suggested that "... it's now better" may also be read as a correction of a performance infelicity, where the speaker realizes that he intended to say, "Peter injured his ankle...". In any event 18b) is inconclusive enough to warrant no further discussion.

23) He has been given several cameras
→X He still has the cameras
24) I've recovered from my illness several times
→X I'm now well again

Apparently the implicatures which obtain lexically can be somehow "blocked" by modification of the verbal message.

Another problem: current relevance is generally considered to be a meaning of the *Perfect*, in either one or both of its inflections. Yet, whether meaning or implicature, currently relevant notions are by no means exclusively triggered by the Perfect, as the Imperfect (25–29) versions of 20)–24) illustrate.

25) John just broke his leg
→ *His leg is still broken*
26) The taxi just arrived
→ *it's now here*
27) Her doll broke a moment ago
→? *it's still not mended*
28) He was given a camera yesterday
→? *he now has the camera*
29) I recently recovered from my illness
→? *I'm now well again*

(Later I shall claim that the notion of recent pastness, which is signalled by such items as *just*, *recently*, *of late*, *lately*, satisfies the condition which triggers implications of current relevance, perhaps providing semantic support for Grice's Relation maxim.)

Thus, taking both Perfect inflections into account, the conclusion is that the current relevance notion associated with the Perfect tense forms involves implicatures, not meanings.[6] One question remains: If current relevance is not a meaning of the Perfect, but an inflection–triggered *implicature*, do such implications of results or effects *necessarily* obtain for the Perfect? That is, are there Perfect sentences where no implications can be naturally derived? Sentences 30)–33) seem to be reasonable examples.

30) I have seen the Statue of Liberty
31) John has met several presidents
32) George Bush has shaken hands with Gorby
33) Have you (ever) been to Florence (Quirk *et al.* 1985:192)

The only implication which can be reasonably constructed for 30)–33) is roughly "*The subject* is now in possession of this experience". Yet this is so general as to be insignificant and can also hold for a sentence involving past experience which is inflected for the Imperfect, as we see in 34)–37).

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[6] Interestingly enough, Quirk *et al.* (1985:189–90) speak of Current Relevance as a "common implication of the present perfective", not as a meaning.

34) I saw the Statue of Liberty in 1965
→ I am now in possession of this experience
35) John met several presidents at the conference
→ John is now in possession of this experience
36) George Bush shook hands with Gorby behind closed doors
→ George is now in possession of this experience
37) Were you (staying) in Florence during the flood?
→ Are you now in possession of this experience?

And for these Imperfect sentences the implicatures may be both explicated and cancelled, as we see in 38):

38) I saw the Statue of Liberty in 1965...
... and I still remember it well
... I'm still a–tingle with the experience
... but I was only two and don't remember a thing about it.

This seems to be sufficient evidence to prove that current relevance implicature is not an inflection–based phenomenon. The problems are thus: a) What are the basic meanings of the Perfect and Imperfect inflections; and b) Is there grammatical or semantic support for current relevance implicature, so that we can predict its occurence in discourse independently of tense triggers?

CURRENT RELEVANCE: PRAGMATIC AND LEXICAL TRIGGERS

There have evolved two types of non–tense triggers of current relevance implicature: pragmatic (or conversational) and lexical. Both are independent of tense morphology. Thus, under proper discourse conditions, 39)

39) The taxi has arrived
40) The taxi is here

can invite the implication that "The taxi is now here". And both 39) and 40) can imply "It is now time to leave" [whereby 40) again illustrates that implicatures are not confined to Present Perfect inflections]. Pragmatically triggered implicatures are of only marginal concern, for they are largely dependent on non–tense factors. Presumably, though, there is a lexical base even to certain kinds of pragmatic implications, one which holds across languages. For if anyone says in any language that he has broken his arm, it will be presumed that the arm is still broken: 41)–42).

41) Ich habe meinen Arm gebrochen
→ *Er ist gebrochen*
42) Jag har brutit armen
→ *Armen är bruten*

And snow anywhere is likely to remain on the ground for a while: 43)–44).

43) Es hat (gerade) geschneit
→ *Es liegt jetzt Schnee auf dem Feld*

44) Det har (just) snöat
→ *Det liger snö på marken*

Lexical triggers can be at least partially systematized. Any conclusive (resultative) verb will provoke an implication involving its results. Thus 45) and 46) involve the interpretation of *set on fire* as *cause to burn*, so that the implication *be burning* obtains for Present Perfect, Past and even Past Perfect inflections.

45) John has (just) set the house on fire
→ *The house is burning*
46) John just set the house on fire
→ *The house is burning*
47) We suddenly realized that John had (just) set the house on fire
→ *The house was burning* (at the time of our realization)

Where Stance verbs involve an implication of continued results, this is certainly due less to Perfect inflections than to conversational conventions and such deictic elements as *here*, *now*, etc.

48) I've lived here for a long time
→ *I still live here*

This is a classic example of Grice's relevance maxim, for why would anyone mention a state of affairs if it were apropos of nothing in the conversation? Note, however, that implications need not necessarily hold for either type, as in 49) and 50).

49) I've lived in Michigan, Georgia and Germany
→X *I still live there*
→X *I still live in Germany*
50) John has set the house on fire three times
→X *The house is (still) burning*

THE TENSES AND UP-TO-NOWNESS

The definitional base of the subsequent discussion is as follows.[7] The Perfect Simple denotes situation pastness, pure and simple. Leech (1971:32) reduces the "meaning of the Present Perfect ... [to] 'at-least-once-before-now'". This adequately describes the basic temporal message of the Perfect Simple, the key notion being "before now", a deictically motivated definition of pastness. The Perfect Continuous predicates a somewhat more complex view of a past situation as: a) a *process* which occured b) *before NOW* and which was c) *concurrent* with the time before NOW, i.e., "*up to NOW*".

The Imperfect Simple denotes a situation which occured a) *before NOW* and b) *at a discrete time*. The Imperfect Continuous denotes a situation as a) *a process* which occured b) *before NOW* and did so c) *at a discrete time*. Both inflections thus signal notions of a particular location in past time.

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[7] Detailed accounts of each tense (form) and of adverbial adjunction are contained in Canavan (1983).

The contrastive relationships among these inflections are: The Perfect inflections involve unspecified Perfect Simple or NOW–Tangential (Perfect Continuous) past time. The past notion with the Perfect inflections is, as it were, indeterminate, though its extension backward in time can be specifically limited by such adverbials as "since X" or "for X amount of time". The common denominator in either Perfect tense is *before NOW*. They contrast, however, in the notion of *up–to–now*ness, which I call Tangency to the primary axis of temporal orientation NOW (Canavan:1983). There is nothing in Perfect Simple inflections which necessarily marks the situation as concurrent with the time "before now". The Perfect Continuous, however, specifically marks a situation as concurent with the time before NOW, i.e. as NOW–Tangential. Wherever a notion of NOW–Tangency obtains for a Perfect Simple, it is traceable to the lexical verb, adverbials of duration, or to pragmatic factors.

Both Imperfect inflections involve a discrete (specified or specifiable) location in past time. Regardless of how recent it may have been, a situation in an Imperfect inflection entails a temporal gap[8] between the time of a its occurrence and NOW. By this is meant a situation–free time between the occurrence of a situation and NOW. That is, Imperfect inflections are basically incompatible with a notion of *up–to–NOWness*.

Assuming, as I claim, that the Perfect Continuous necessarily denotes a situation as an imperfective process continuing *up to now*, then sentence 51)

51) I have been living in Germany

can quite naturally invite the implication that I still live there. But this is certainly due to expectations associated with the phrase *live in Germany*. The Perfect Continuous does not necessarily invite implications of situation *continuation* in the present, however. For instance, if someone comes into my living room and finds me relaxing in an easy chair with a cold beer, I might easily utter 52).

52) I've been cleaning out my workshop

If my visitor correctly assesses the situation he will not infer that I am still engaged in the activity but that I have interrupted it. He may, but need not, infer that I intend to continue. Yet this could also be cancelled with the proper gesture or a remark such as, "But it's an absolutely hopeless task". Again, with the proper gesture or other signal he might also infer that I'm inviting him to have a beer too. The list of possible implications could continue.

Continuing at the pragmatic level, sentence 53)

53) I've been living in Michigan, Georgia and Germany (for a long time)

is decidedly peculiar, for it is hard to imagine anyone living in three so widely separated geographical locations simultaneously, and 53) cannot be interpreted as denoting sequential situations. Yet, by the same token, 54)

54) I've been working in Michigan, Georgia and Germany (for a long time)

is pragmatically unobjectionable, for it can be interpreted as denoting "work in Michigan", "work in Georgia" and "work in Germany", i.e., sequential (if un-ordered) situations. Apparently, then, conversational and pragmatic conventions as well as vagueness concerning the continuation of the situation in the present are factors in current relevance implicature. Such factors are unpredictable for many types of situation, but when present they may influence the specific message of an implicature. Since neither the Perfect forms nor the lexical verb force implicatures, contextual factors will remain unpredictable.

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[8] Canavan (1983:29–30 *et passim*), Quirk *et al.* 1985:183–84).

TEMPORAL GAP AND BLOCKING

The central point seems to involve the notion of a temporal *gap*. The entailment of a temporal gap between the time of the situation and NOW, specifically marked by Imperfect inflections, but entailed with certain Lexical Verbs in Perfect Simple inflections, thus blocks current relevance implicatures. The gap entailed in 34) is the time between 1965 and NOW. In 35)–37) temporal gaps are entailed between the (unspecified) time of the occurrence of each situation and NOW.

Since Perfect Continuous forms denote continuance of the situation up to NOW, no gap notion obtains and current relevance implicatures are invited. The sentences in the second test ("It/He has been VERBing") indicate, however, that the Lexical Verb triggers any notions of specific *results* or *effects*.

Perfect Simple forms mark only Pastness, any gap notion depending on the semantics of the lexical verb. Thus sentences 30)–33), none of which can be interpreted as having continued "up to NOW", all entail a gap notion between the times of their occurence and NOW. Accordingly, current relevance implicatures are not invited. Where the Lexical Verb permits interpretation for up–to–NOWness, as in 45), 48) and 54), there is no notion of a gap and implicatures for current relevance are not blocked.

Adjunction to a Perfect Simple of a frequency adverbial blocks current relevance implicature through the entailment of a gap notion between *then* and *NOW*. With the exception of verbs which denote iterativity, Perfect Continuous inflections seem to be incompatible with frequency adverbials. This is probably due to the contradiction between the gap notion which frequency adverbials provoke and the notion of Tangency to Now which the inflection provokes. With iterativity the frequency adverbial quantifies individual occurrences of the situation, while the inflection predicates the whole situation as NOW–Tangential. In this case no real contradiction obtains.

There is a small set of adverbials (*just*, *recently*, *lately*, *of late*) which are compatible with both Imperfect and Perfect forms.[9] They mark Past Tangency to NOW and denote recent past time. They thus resemble the adverbials *since X* and *X–time ago*, which also mark Pastness as Tangential to NOW. Needless to say, such marking is incompatible with a notion of a temporal gap. Where a Perfect Simple or an Imperfect is adjuncted by such an adverbial any notion of a temporal gap is overridden. (And where the adverbial is adjuncted to a Perfect Continuous, marking for NOW–Tangency is redundant.) These adverbials do not establish a temporal gap between the occurrence of the situation and NOW. Rather they establish a NOW–Tangential time within which the situation occurs. Thus, it seems, since the time referred to is tangential to NOW implicatures are not blocked. They are also not forced, however, and are controlled or triggered by the lexical verb or by pragmatic factors.

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[9] A fuller treatment of temporal adverbials is contained in Canavan (1983:Chap. Four).

What all of these types have in common is thus the absence of any notion of a temporal gap between NOW and either the time of the situation itself or the time within which the situation occurred. That is, either the *situation itself* is interpretable as NOW–Tangential, as in 55) and 56)

55) I have lived in Germany (for a long time)
56) I have been living in Germany (for a long time)

or the *time referred to* is recent and NOW–Tangential, as in 57) through 60).

57) Tom has just let the dog out → The dog is now outside
58) Sue has been overexercizing lately → Sue is exhausted
59) Tom just let the dog out → The dog is now outside
60) Sue just overexercized → Sue is exhausted

For all these types, then, the condition is simply: Implicatures for current relevance are invited when Tangency to NOW is given. Wherever Non–Tangency to NOW obtains for a situation or the time within which it is located, implicatures are either not invited or they are expressly blocked.

SUMMARY

Current relevance is an implicature, not a meaning. The base of implicatures involving the current relevance of a situation is not the English Perfect Tense but the semantic notion of Tangency to NOW. This notion invites but does not force implications and obtains in English for Perfect Continuous predications and for those containing adverbials denoting NOW–tangential recent pastness. With Perfect Simple forms Tangency to NOW is dependent on an appropriate adverbial or on pragmatic or conversational conventions along the lines of Grice's Maxim: Be Relevant. Where Tangency to NOW obtains in Perfect Simple predications current relevance implications are also not blocked. The Lexical Verb triggers any notions of specific effects or results (i.e., the message of the implicature) but these are largely unpredictable except for resultative verbs. Under similar semantic conditions, current relevance implicature most probably obtains in any language.

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TEACHING FRENCH TO SPANISH SPEAKERS: SOME TYPICAL PATTERNS OF ERROR

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1. Introduction

While this paper is addressed primarily to teachers of French whose students include native speakers of Spanish, it is expected that many of the remarks made here will be relevant for teaching French to learners of any language background with prior exposure to Spanish. To a lesser extent, some of the observations made here will be of interest to Spanish teachers whose students are already familiar with French and who are now embarking on the study of Spanish.

The article is based on the author's observations of his mostly Spanish–speaking students' performance in French during classroom activities and homework assignments. These observations were over a period of five years, during which time the author taught French and Linguistics at the San German campus of the Inter American University of Puerto Rico.

The purpose of the paper is to point out several typical patterns of morphological, syntactic, and lexical errors made by these Spanish–speaking undergraduate students and to suggest explanations of some potential sources of the errors. It is hoped that others teaching French to learners with a Spanish background will, by becoming aware of these underlying patterns of error and their causes, be better equipped do deal with them within the framework of whatever teaching approaches they may prefer.

Of course, many types of errors in French, particularly grammatical ones, depend not so much on the learner's language background as on other factors such as overgeneralizations of patterns of French itself or the mode of presentation of the target language. These types of errors in French will often be similar for English and Spanish speakers or, indeed, for speakers of other languages as well. In other cases, the patterns of error of Hispanic learners will differ from those of English speakers. It is this latter type of error which this paper seeks primarily to address through a posteriori analysis.

In the rest of this paper, several patterns of error assumed to be specific to the Spanish–speaking learner are pointed out, a likely source of the errors is indicated, and a few approaches to dealing with these problems which proved to be successful in French classes at Inter American are suggested. Errors are categorized and dealt with as grammatical ones, lexical errors due to phonetic similarity between the two languages, semantic errors, and general lexical errors.

2. *Grammatical errors*

A number of patterns of grammatical errors were observed among the students at Inter American. These included errors in the use of pronouns, articles, verbs, and prepositions, each of which is taken up in turn below.

2.1. Personal pronouns. Various types of errors involving the use of personal pronouns were noted. The first of these, the omission of French subject pronouns, is apparently explicable from Spanish, where subject pronouns may usually be omitted without ambguity, as in *hablo*, *hablas*, *habla*, *hablan* 'I speak, you speak, he/she speaks, they speak'. Hence students frequently try to omit them in French. It is helpful to show students that in the absence of subject pronouns, the homophony of many French verbs forms would result in ambiguity (e.g. *parle*, *parles*, *parlent*) and that for this reason the pronouns are obligatory in French, in the absence of subject nouns, even where they might be optional in Spanish.

A second type of error involves the use of subject pronouns where emphatic or disjunctive pronouns are called for in one–word utterances. For example, asking whether the teacher or another student is indeed addressing him/her ("Who? Me?"), the Spanish–speaking student would systematically ask •*je?* (cf. Sp. *¿yo?*). Asking about someone else, they would say •*il?* or •*tu?* or •*ils?* (cf. Sp. *¿él?* or *¿tú?* or *¿ellos?*). The source of error is easy to understand from a glance at Fig. 1, where it is seen that pronoun choice in one–word utterances in Spanish is identical to that of subject position, while in French there is only partial overlap in these two environments. It is worth noting that English speakers at Inter American seem impressionistically to be more likely to produce the correct *moi?* and *toi?* or even *lui?* and *eux?* in these situations, once the forms had been presented.

Similar errors occur with the pronouns used after prepositions. Here, however, the problem is limited to the 3rd person masculine as in •*pour il* and •*pour ils*, modeled on Spanish *para él* 'for him' and *para ellos* 'for them'. Spanish speakers learn *pour moi* 'for me' and *pour toi* 'for you (sing.)' readily enough, perhaps because, as Fig. 1 illustrates, in both Spanish and French, 1st and 2nd person pronouns used with prepositions are distinct from the corresponding subject pronouns. In the case of *pour elle*, *nous*, *vous*, or *elles*, 'for her, us, you (pl.), them (fem.)', there is no problem, since in each of the languages, subject forms and forms used with prepositions are identical. Only with third person singular and plural *lui* and *eux* is there a problem, apparently because in the native Spanish, but not in French, subject forms and prepositional object forms are identical.

As far as the position of personal pronouns is concerned, Spanish speakers are not surprised at placing pronoun object before the verb. However, in Spanish, unlike

THE PRONOUNS OF SPANISH

<table>
<tr><th colspan="2"></th><th>SUBJECT</th><th>DIR. OBJ.</th><th>INDIR. OBJ.</th><th>OBJ. OF PR.</th><th>ONE-WORD UTTERANCE</th></tr>
<tr><td rowspan="5">SING.</td><td>1st</td><td>yo</td><td colspan="2">me</td><td>mí (-migo)</td><td>yo</td></tr>
<tr><td rowspan="2">2nd</td><td>tú</td><td colspan="2">te</td><td>ti (-tigo)</td><td>tú</td></tr>
<tr><td>Usted</td><td>se</td><td rowspan="3">le (se)</td><td colspan="2">Usted</td></tr>
<tr><td rowspan="2">3rd</td><td>él</td><td>lo (le)</td><td colspan="2">él</td></tr>
<tr><td>ella</td><td>la</td><td colspan="2">ella</td></tr>
<tr><td rowspan="5">PL.</td><td rowspan="2">1st</td><td>nosotros</td><td colspan="2" rowspan="2">nos</td><td colspan="2">nosotros</td></tr>
<tr><td>nosotras</td><td colspan="2">nosotras</td></tr>
<tr><td>2nd</td><td>Ustedes</td><td>se</td><td rowspan="3">les (se)</td><td colspan="2">Ustedes</td></tr>
<tr><td rowspan="2">3rd</td><td>ellos</td><td>los</td><td colspan="2">ellos</td></tr>
<tr><td>ellas</td><td>las</td><td colspan="2">ellas</td></tr>
</table>

THE PRONOUNS OF FRENCH

<table>
<tr><th colspan="2"></th><th>SUBJECT</th><th>DIR. OBJ.</th><th>INDIR. OBJ.</th><th>OBJ. OF PR.</th><th>ONE-WORD UTTERANCE</th></tr>
<tr><td rowspan="5">SING.</td><td>1st</td><td>je</td><td colspan="2">me</td><td colspan="2">moi</td></tr>
<tr><td rowspan="2">2nd</td><td>tu</td><td colspan="2">te</td><td colspan="2">toi</td></tr>
<tr><td colspan="5">vous</td></tr>
<tr><td rowspan="2">3rd</td><td>il</td><td>le</td><td rowspan="2">lui</td><td colspan="2"></td></tr>
<tr><td>elle</td><td>la</td><td colspan="2">elle</td></tr>
<tr><td rowspan="4">PL.</td><td>1st</td><td colspan="5">nous</td></tr>
<tr><td>2nd</td><td colspan="5">vous</td></tr>
<tr><td rowspan="2">3rd</td><td>ils</td><td rowspan="2">les</td><td rowspan="2">leur</td><td colspan="2">eux</td></tr>
<tr><td>elles</td><td colspan="2">elles</td></tr>
</table>

Fig. 1. The pronouns of Spanish and French in contrast

French, the indirect object always precedes the direct, with the result that another systematic pattern of error often appears in the students' French. Morever, the fact that Spanish does not allow two pronouns beginning with the sound [l] to occur in succession but requires that the first of them (the indirect object) be *se*, leads to still another error. Thus, in attempting to render *je le lui dis* 'I tell it to him', students were observed to produce **(je) se le dis* on the model of Sp. *se lo digo* or even **je se le dis à Marie*, modeled on *se lo digo a María*. This latter sentence illustrates yet another error involving indirect object pronouns stemming from the fact that Spanish often uses a redundant indirect object pronoun with *decir* 'say' and similar verbs of telling even when the indirect object noun is expressed. As a result, Hispanic students will occasionally insert an unnecessary *lui* into sentences with *dire*, yielding sentences such as **Dites–lui à Jean que le café est là* 'Tell John that the coffee is there' (Sp.*¡Díçale a Juan que el café está allá!*).

Still another type of error in pronoun usage involves overextension of the use of *se* in conformity with Spanish patterns. This results in errors such as **se parle français en Martinique* on the model of Spanish *se habla francés en Martinica* 'French is spoken in Martinique'. In this case, as in many others, French prefers a verb with *on* as its subject. Occasionally, other structures such as preposition + infinitive, are involved as when •*se vend* or **se loue* are used for *à vendre* 'for sale' or *à louer* 'for rent' (Sp. *se vende* and *se alquila)*.

Finally, pronoun objects of infinitives are often misplaced. Since in Spanish a pronoun object may either follow the infinitive or precede the main verb governing the infinitive, students sometimes say •*je veux voir le* or •*je le veux voir* for *je veux le voir* 'I want to see it/him' (Sp. *quiero verlo* or *lo quiero ver*), either •*je vais à parler lui* or •*je lui vais à parler* for *je vais lui parler* 'I'm going to talk to him' (Sp. *voy a hablarle* or *le voy a hablar*).

2.2. Articles. Fortunately, the uses of the article in French closely parallel Spanish. As a result, Spanish dominant students at Inter American made fewer mistakes with articles than did their English dominant classmates. Still, several types of errors do occur. For example, since no article is needed in Spanish with *otro* 'other', *un* or *une* is omitted with *autre* as in •*je vois autre voiture* (Sp. *veo otro carro*) 'I see another car'. Conversely, an article may occur where it is not required with *monsieur*, *madame* or *mademoiselle*: e.g. •*c'est le monsieur Perez* or •*c'est la madame Lopez* (Sp. *es el señor Pérez* or *es la señora López*) 'this is Mr. Perez/Mrs. Lopez'. Time expressions may also contain an article, as in •*il est les trois heures* (or even „*sont les trois heures*) patterned in part on Spanish *son las tres* 'it is there o'clock'.

Confusion may result from the different patterns of using the definite article for expressing the days of the week in the two languages. French uses no article for the expression of a single event (e.g. *samedi* 'on Saturday, this Saturday') while Spanish uses a singular article in this situation (*el sábado*). On the other hand, for habitual occurences, French uses the singular article (*le samedi* 'on Saturdays, every Saturday') where Spanish requires a plural one (*los sábados*). Since *le samedi* resembles *el sábado* structurally, the student may assume that they are identical semantically. Thus, *je vais au cinema le samedi* 'I go to the movies on Saturdays' (habitual action) is sometimes misunderstood or used in the sense of 'I am going to the movies this Saturday' (single instance).

2.3. Verbs. Spanish speakers encounter fewer problems with the semantics of French verb tenses than do English speakers. Since the uses of the various verb tenses have much in common in French and Spanish, once the verb forms have been learned, the choice of one tense over another is relatively easy for the Hispanic learner. Relatively little time need be devoted to the semantics of the imperfect versus the *passé composé* or to explaining the subjunctive. In fact, once the forms of the subjunctive are known, the problem is not so much one of getting students to use them as to get them to restrict their use of the subjunctive. In accord with the more extensive use of the subjunctive in Spanish, they may want to use it with any verbs dependent on *penser* 'think' or *espérer* 'hope', whether affirmative or negative; or in place of the imperfect in *si*–clauses stating conditions contrary to fact (e.g. •*s'il soit ici, je le verrais* 'if he were here, I would see him'); or in place of the future tense with *quand* (•*quand tu sois en San Juan* for *quand tu seras à San Juan* 'When you are in San Juan' (cf. Sp. *cuando estés* [subj.] *en San Juan*). Moreover, the subjunctive rather than the indicative may appear with verbs of ordering, as in

•*Dites–lui qu'(il) ouvre la porte* for *Dites–lui d'ouvrir la porte* on the model of Spanish *¡Dígale que abra la puerta!* 'Tell him to open the door!'

In some contexts where the *passé composé* is required, the *passé simple* occurs occasionally among students who have mastered the latter form. Indeed, two advanced level students, who had learned a great deal of French on their own, persisted for some time in alternating between the *passé simple* (morphologically similar to the Sp. preterite) and the *passé composé* (similar to the Sp. present perfect). It was as if, having taken the trouble to learn these forms in French, they were reluctant to give them up.

2.4. Prepositions. A frequent error involving prepositions is use of *de* in •*devant de* 'in front of' or •*derrière de* 'behind'. However, the source of this error is not immediately apparent, since the occurrence of *de* may possibly be calqued on the equivalent Spanish expressions *delante de* and *detrás de* or it may be an overgeneralization from other French prepositional expressions such as *à côté de* 'next to', *au milieu de* 'in the middle of', *en face de* 'opposite', *loin de* 'far from', *près de* 'near', etc.

Two minor grammatical problems involving *à* are worth nothing. The first of these is the insertion of an unnecessary *à* in the *futur proche* as in •*je vais à devenir médicin* (Sp. *voy a ser médico*) 'I'm going to be(come) a doctor'. The second unwarranted use of *à* is patterned after the so–called "personal *à* of Spanish required before all direct object nouns referring to persons: •*tu vois à Marie?* (Sp. *¿ves a María?*) 'Do you see Mary?' The two examples just discussed here involve use of prepositions in contexts where they are ungrammatical in French. Another type of error, where the incorrect choice of prepositions is involved, is dealt with in the section on semantics below.

3. Phonetic similarity and lexical errors

Several lexical items are frequently misinterpreted or uttered inappropriately, apparently because of phonetic similarity to Spanish. Perhaps the most common of these errors is use of *elle* 'she' where masculine *il* 'he' is intended or the interpretation of *elle* in spoken French as having a male referent (cf. Sp. where masc. *él* contrasts with fem. *ella*). The teacher's feigning surprise at use of *elle* where *il* is clearly intended is an effective reminder to students regarding proper pronoun choice. Eventually students reach a point where they enjoy feigning surprise when they catch a classmate using *elle* for *il*. The student making the error quickly realizes what has happened and is able to self–correct.

A second error apparently resulting from phonetic similarity is the re–interpretation of French *est–ce* 'is it' as a single morpheme corresponding to Spanish *es* 'is'. Initially, a few students seem to have analyzed the two syllabes of *Qui est–ce?* [ki] + [ɛs] 'who is it' as being isomorphic with Spanish *¿Quién es?* [kjen] + [es]. This appears to be the source of utterances such as *[ɛs mari] or *[ɛs la pɔrt] for *c'est Marie* 'It's Mary' and *c'est la porte* 'It's the door' in the early stages of the course (cf. Sp. *es María* and *es la puerta*). The most effective means of dealing with this problem was to delay introduction of *Qui est-ce?* until well after the structures Noun + *est*, *il/elle* + *est*, and then *c'est* had been mastered.

Other minor problems involving phonetic similarity include the interpretation of *à qui?* 'to whom' as Sp. *aquí* 'here', the interpretation of *seize* 'sixteen' as Sp. *seis* 'six', *treize* 'thirteen' as Sp. *tres* 'three', and the not infrequent use of *sí for oui* (cf. the frequent occurrence of *si* in French in response to negative questions). Interestingly, *où?* 'where' is often misunderstood as 'who', clearly under influence from English, the students' second language.

4. Semantics

4.1. Familiar pronouns. Speakers of Spanish will readily understand the distinction between the various forms of *tu* (T-forms) and *vous* (V-forms) in French, since a similar distinction exists in the native language. However, in Puerto Rican Spanish, and in other types of Caribbean Spanish as well, T-forms are used in a much wider range of social situations than in France. Hence, Hispanic students may well use *tu* and *vous* inappropriately and will have to learn that the socially acceptable usage of these forms does not correspond entirely to the choice of *tú vs. Usted* in Spanish.

4.2. Possessives. A more serious semantic problem arises from the students' tendency to equate French *son/sa/ses* 'his, her, its' with the Spanish possessive *su/sus* 'his, her, its, your, formal their' and to extend the use of *son/sa/ses* to situations where *votre/vos* 'your' or *leur/leurs* 'their' would be appropriate (e.g. **c'est son stylo* where *c'est votre stylo* 'It's your pen' is intended). To remind students of distinction, it was useful in my classes, when students addressed me with *son/sa/ses* instead of *votre/vos*, to respond as if they were referring to someone else. for example by turning around to see if anyone was behind me. However, an even more effective means of dealing with the problem before it became a problem was to rearrange the order of presentation of the material, delaying introduction of *son/sa/ses* until after *votre/vos* was mastered.

4.3. Common gender. In Spanish, a masculine plural noun may be used to designate both male and female members of the species referred to. Thus, while *padre* means 'father' and *madre* means 'mother', *mis padres* means 'my parents' and may be rendered incorrectly in French as **mes pères* in place of *mes parents*. Or *combien de frères tu as?* may be misconstructed as 'How many brothers and sisters do you have?' (cf. Sp. *¿cuántos hermanos tienes?*), rather than referring specifically to the number of brothers. Similary, *elle a trois fils* 'she has three sons' may be misunderstood as a reference to both sons and daughters (cf. Sp. *hijos* 'sons, children') or *les garçons jouent dans la rue* may occur when both boys and girls are involved and where *les enfants* would be more appropriate (cf. Sp. *niños*). In a similar vein, an advanced student once refered to the king and queen of Spain as **les rois d'Espagne* where *le roi et la reine* were meant (Sp. *los reyes de España*).

4.4. Greetings. As student and teacher pass in the hallway the student may greet the teacher with *_au revoir, professeur!_. When this happens, the student is extending the semantic range of _au revoir_ to include what is included by _¡adios!_ in Spanish, where it not only means 'good bye' but may also mean 'hello!' when two acquaintances pass without intending to engage in conversation. The students need to learn that _bonjour, monsieur!_ or _bonsoir, madame!_ are the appropriate utterances when acquaintances pass one another, equivalenr here to _¡adios, profesor(a)!_

Students who know _bonne nuit!_ are liable to use it where _bonsoir!_ is called for (or vice versa) since in Spanish _¡buenas noches!_ does duty for both. On the other hand, in the case of _¡buenos dias!_ 'good morning!' (literally 'good day!') and _¡buenas tardes!_ 'good afternoon!', it is Spanish which makes a distinction which French does not. As a result, students who know that _bonjour!_ is appropriate in the morning do not realize that its range of appropriateness extends to later in the day and will sometimes ask how to say 'good afternoon!'

4.5. Miscellaneous semantic extensions. Second language learners are often unaware of the limits on the semantic range of vocabulary in the target language, as for example when an English speaker says _source_ 'spring' when _printemps_ is intended. Hispanic learners, like their English-speaking classmates, may extend the semantic range of French lexical items, but in ways may puzzle the English-language teacher. For example, Puerto Rican students occasionally attempted *_il vient matin_ for _il vient demain_. Such an utterance is not at all surprising when it is borne in mind that both 'morning' and 'tomorrow' are expressed with the same word, _mañana_, in Spanish. Similary, students sometimes extended the range of _haut_ to mean _grand_. Thus, if they knew that _la tour est haute_ 'the tower is high/tall' is equivalent to _la torre es alta_, they would expect *_Jean est haut_ to be equivalent for _Juan es alto_ 'John is tall.' In the same way, _bas_ (Sp. _bajo_) occurred with the meaning of 'short' as in *_le monsieur est bas_ (Sp. _el señor es bajo_) 'the man is short.' The students' error seems explicable from the fact that, while Spanish uses _alto_ to mean 'tall' (with reference to people) as well as in the sense of 'high' and uses _bajo_ to mean 'short' (referring to people) as well as 'low', French distinguishes between _grand_ and _haut_ on the one hand and _petit_ and _bas_ on the other.

Where French clearly distinguishes _pourquoi?_ 'why' from _parce que_ 'because', the Spanish equivalents _¿por qué?_ 'why?' and _porque_ 'because' are phonetically quite similar to one another. This fact often lead to still another example of semantic extension by analogy with Spanish, namely the use of *_pourquoi_ in the sense of 'because'.

Another frequent error among Puerto Rican students involved extension of the semantic range of _déjà_ to contexts which are ungrammatical in French. _Déjà_ 'already' is expressed _ya_ in Spanish. However, _ya_ may also occur in negative sentences, where it means 'no longer'. Thus, while _no lo sé_ means 'I don't know', _ya no sé_ means 'I no longer know'. This often led students to construct sentences such as *_déjà je ne sais pas_ where _je ne sais plus_ was intended.

In an interesting, though infrequent error of inappropriate semantic extension, one student, knowing that _domingo_ 'Sunday' is expressed _dimanche_ in French, cleverly reasoned her way to *_mon cousin étudie en Saint-Dimanche_ for _mon cousin étudie à Saint-Domingue_ (Sp. Santo Domingo).

4.6. Prepositions. With geographic expressions, Spanish uses _en_ 'in' to show location (_estoy en España_ 'I'm in Spain') and _a_ to show direction (_yo voy a España_ 'I'm going to Spain'). Attempting to follow that same pattern in French, Hispanic students will produce sentences like _je suis en Espagne_ and *_je vais à Espagne_ or *_je suis en Porto-Rico_ and _je vais à Porto-Rico_. Of course, English-speaking lerners produce similar errors, but the problem may be compounded among Spanish speakers by the phonetic and orthographic similarity of the prepositions in the two languages. Moreover, in non-geographic contexts, _en_ in Spanish has a much wider range than does French _en_. Hence, students produced *_en la table_ (Sp. _en la mesa_ 'on the table'), *_en le mur_ (Sp. _en la pared_ 'on the wall'), *_en la rue_ (Sp. _en la calle_ 'on the street'), or *_penser en_ (Sp. _pensar en_ 'to think about'), where in French such various prepositions as _sur_, _dans_, or _à_ are required.

5. Vocabulary

Even though in the realm of vocabulary the Latino student does enjoy some advantage over the Anglo, since so much of the French lexicon resembles Spanish, the advantage of the Spanish-speaking student in learning vocabulary should not be exaggerated, for a great deal of elementary French vocabulary does not resemble Spanish at all or, indeed, may more closely resemble English than Spanish. The most important problem areas are gender and misleading cognates or _faux amis_.

5.1. Gender. The existence of grammatical gender comes as no surprise to Hispanic students and, in fact, is quite helpful in learning French vocabulary, since etymologically related words usually have the same gender in both languages. However, students are bothered by the fact that gender in French is less predictable than in the native language, where the ending is normally a reasonably sure indicator of gender. They expect even unrelated words to have the same gender in both languages and are a little surprised that _montre_ 'watch' is feminine in French (cf. masc. _reloj_ in Spanish), while _mur_ 'wall', _stylo_ 'pen', _cahier_ 'notebook', _tableau_ 'blackboard', or _film_ are masculine (cf. _la pared_, _pluma_, _libreta_, _pizarra_, _película_). They are even surprised when closely related words do not exhibit the same gender in the two languages. Fortunately, the number of such cases is small. Common examples include _lait_ 'milk', _printemps_ 'spring', _fruit_ 'fruit', _sel_ 'salt', _sort_ 'fate luck', _sang_ 'blood', _doute_ 'doubt', and _miel_ 'honey', which are masculine in French but feminine in Spanish (_leche_, _primavera_, _fruta_, _sal_, _suerte_, _sangre_, _duda_, _miel_) and, conversely, _salle_ 'room', _banque_ 'bank', _dent_ 'tooth', _fin_ 'end', and _minute_ which are feminine in French but masculine in Spanish (_salón_, _banco_, _diente_, _fin_, _minuto_). _Mer_ 'sea', feminine in French, may take either gender in Spanish but, except in geographical names, is usally masculine.

Gender differences between the languages include a few common feminine words in _-eur_ in French having masculine cognates in _-or_ in Spanish. These include *la couleur* 'color', *douleur* 'pain', *saveur* 'flavor', *faveur* 'favor', and *vapeur* 'steam' (Sp. *el color, dolor, sabor, favor, vapor*, etc). Of course, not all French words in *–eur* are feminine (e.g. *honneur* 'honor' and words designating professions: *professeur* 'teacher', *acteur* 'actor', *chanteur* 'singer', *vendeur* 'salesman', etc.).

5.2. *Faux amis*. As is true of the Anglo student, misleading cognates or *faux amis* are a problem for the Latino learning French. However, what might be *faux amis* for the English–speaking learner (e.g. *actuellement* 'at present', *assister* 'attend', *conférence* 'lecture', *déception* 'disappoitment', *ignorer* 'not to know', *lecture* 'reading', *librairie* 'bookstore', *note* 'grade in school', *sympathique* 'friendly', etc.) may turn out to be *bons amis* for the Spanish speaker (cf. Sp. *actualmente, asistir, conferencia, decepción, ignorar, lectura, librería, nota, simpático*, etc.). Conversely, the Spanish speaker's faux amis will not necessarilly be the same as the English speaker's. Some common examples include those listed in Fig. 2.

Fig. 2. Misleading cognates

FRENCH ITEM	*SPANISH EQUIVALENT OF FRENCH ITEM*	*SPANISH COGNATE*	*FRENCH EQUIVALENT OF SPANISH COGNATE*
attendre 'to wait for'	*esperar*	*atender* 'to take care of'	*soigner*
aucun 'none'	*ningún*	*algún* 'some'	*quelque*
bizarre 'strange'	*raro* ; *original*; *extrao*	*bizarro* 'brave: magnanimous'	*courageux*; *brave*; *vaillant*
brave 'courageous'	*valiente*; *valeroso*	*bravo* 'ferocious'	*féroce*
bureau 'desk; office'	*escritorio*; *oficina*	*burro* 'donkey'	*âne*
carte 'map; card'	*mapa*; *tarjeta*	*carta* 'letter'	*lettre*
casser 'to break'	*romper*	*casar* 'to marry (off)'	*marier*
code 'code'	*código*	*codo* 'elbow'	*coude*
courage 'courage'	*valor*	*coraje* 'anger'	*colère*
dégoûter 'to disgust'	*repugnar*	*disgutar* 'to displease'	*déplaire*
déjà 'already'	*ya*	*deja* 'he leaves'	*il laisse*
demander 'to ask; request'	*preguntar*; *pedir*	*demandar* 'to sue'	*poursuivre en justice*
désarroi 'disorder; confusion'	*desconcierto*	*desarrollo* 'development'	*développement*
détresse 'distress'	*angustía*	*destreza* 'skill'	*habileté*; *compétences*
elle 'she'	*ella*	*él* 'he'	*il*
embarrassée 'embarrassed'	*avergonzada*	*embarazada* 'pregnant'	*enceinte*
enfermé 'closed up'	*encerrado*	*enfermo* 'sick'	*malade*
entendre 'to hear'	*oír*	*entender* 'to understand'	*comprendre*
large 'wide'	*ancho*	*largo* 'long'	*long*
lettre 'letter'	*carta*	*letra* 'words of a song'	*paroles*
nièce 'niece'	*sobrina*	*nieta* 'granddaughter'	*petite–fille*
quitter 'to leave'	*dejar*; *abandonar*	*quitar* 'to remove'	*enlever*
rester 'to remain'	*quedarse*	*restar* 'to deduct; reduce'	*déduire*; *soustraire*
salir 'to dirty'	*manchar*; *ensuciar*	*salir* 'to go out'	*sortir*
sol 'ground'	*suelo*	*sol* 'sun'	*soleil*
subir 'to undergo'	*sufrir*	*subir* 'to go up; climb'	*monter*
succès 'success'	*éxito*	*suceso* 'event'	*événement*
user 'to wear out'	*gastar*; *debilitar*	*usar* 'to use'	*employer*; *utiliser*

In addition to the *faux amis* just mentioned, there is a small group of words which cannot be considered *faux amis* exactly, since there is some partial overlap of meaning. In these cases, the cognate word is much more restricted in meaning in one of the languages than it is in the other. In the case of *sentir*, at least, it is Spanish which is more precise than French, in that Spanish has two terms, *sentir* 'to feel' and *oler* 'to smell', corresponding to just one in French. Generally, however, it appears that the opposite is true, i.e. that French is more precise than Spanish. Examples include:

FRENCH:	SPANISH:
attendre 'to wait'	*esperar*
espérer 'to hope'	
avoir 'to have'	*tener*
tenir 'to hold'	
habiter 'to dwell; inhabit'	*vivir*
vivre 'to live; be alive'	
adresse 'address'	*dirección*
direction 'direction'	
disgrâce 'disgrace'	*desgracia*
malheur 'misfortune'	
cheveux 'hair (of head)'	*pelo*
poil 'hair (of animals or of body)'	
station 'station'	*estación*
saison 'season'	
tirer 'to pull'	*tirar*
jeter 'to throw'	

The partial overlap of cognate words could theoretically lead to error on the part of Spanish speakers. In actual fact, errors within this set do not often occur, probably because the term which in no way resembles Spanish is often the one learned long before the other member of the set.

6. Conclusion

This has been but a brief survey of some of the types of errors French teachers might be on the watch for among Spanish-speaking students. Anticipating the most common error patterns that arise, the classroom teacher is better equipped to incorporate exercises beneficial to the Latino into the lesson planning.

THE PASSIVE AND PASSIVIZABILITY IN DANISH AND GERMAN[1]

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1. INTRODUCTION

Even though it has not been proved by linguistic research, it is a general and undoubtedly true assumption that the passive, that is, the grammaticalized passive, is more frequent in Danish than in German.[2] This assumption applies not least to the language of business and management including business correspondence, and the main reason for this seems to be a general tendency in German to use personal expressions such as *Wir teilen Ihnen hierdurch mit, daß ...*/*Wir bitten Sie...* vs Danish *De meddeles herved, at ...*/*De bedes ...*; an in other respects perfect business letter written by a native speaker of Danish may thus be confused by an extensive use of the passive, however genuine the German forms may be in isolation, and an analysis of the general norms for the use of the passive voice in the text type business letter is consequently an important area of research.

Another reason for the differences in frequency between Danish and German is the fact that the Danish language allows passivization to a much larger extent than does the German; it must therefore be taken for granted that a determination of the systematic conditions for passivization in the two languages would contribute to the elimination of the by far not rare and rather far-fetched passives in texts translated from Danish into German; an authentic example of this could be **diese Probleme werden in allen Branchen gekannt*, translated directly from Danish *disse problemer kendes i alle brancher*.

In other words, the divergences in the use of the passive in Danish and German as they are seen in business correspondence are thus due to text type specific as well as general, systematic factors. It should be apparent from the above that none of these have been the subject of thorough linguistic research so far, and I intend to make up for this in the near future, also because the results of such research would seem important in the teaching of German as a foreign language in Denmark. In the first phase of the project I have had to leave out the text type specific mechanisms, however; it is only possible to reach reasonable results in this area by analysing large text corpora which, at the moment, are not available, and so far I have therefore concentrated on the phenomenon passivizability and in this connection I have had to delve into the two language systems.

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[1] I want to express my sincere gratitude to my wife and colleague, Karen M. Lauridsen, The English Department, the Aarhus School of Business, for her help with the English version of this paper.

[2] Cf. Collin Eriksen, C. et al. 1984. *Tysk Grammatik*. 1st edition. Copenhagen: Gyldendal. p. 148ff; Poulsen, Sv.–O. 1981. *Grammatiske termer med eksempler og forklaringer*. Aarhus: Handelshøjkolen i Aarhus. p. 36; Rossen, A. 1982. *Tysk Grammatik*. Bearbejdet af P.V. Christiansen, Bendt Pedersen og Harald Pors. Copenhagen: Aschehoug. p. 110ff.

2. CRITICISM OF AVAILABLE LITERATURE (LAURIDSEN (1987:158–73))

As already mentioned, passivizability in itself has not at any time been the primary subject of research, and in the main part of the relevant literature the problems connected with passivizability are either not mentioned at all or are only dealt with on the basis of the description in various grammars. No language specific Danish or German work on the subject contains any useful suggestions and it therefore seems reasonable to speak about a *terra incognita*.

In the following the literature on the subject will not be dealt with in any detail; only a description of the general tendencies will be attempted by the incorporation of typical works and criticism of their weakest points. The first part of my investigations only comprises the polyvalent verbs, and in the following I shall concentrate on the works that deal with the *-s-* or *blive-* and the *werden*–passivizability of such verbs.

2.1. The Literature Concerning German Passivizability

Let us first concentrate on the literature concerning German passivizability. It is a characteristic feature of most of the works on the subject that they do not offer a really systematic evaluation of the problem of passivizability/non-passivizability, and instead they present lists either of accusative selecting verbs or of clauses that only occur in the active; attempts at possible explanations are sporadically added to such lists.

2.1.1. The Duden Grammatik (Lauridsen (1987:158–60))

An instructive example of such a primarily registering procedure is found in the 1972 and 1984 editions of the *Duden Grammatik*.

As far as the transitive verbs are concerned, that is, the verbs that require a dependent in the accusative, the 1972 edition lists the following ten clause types which lack passivizability:

(1) Clauses with a nonreflexive verb (*unechtes reflexives Verbum*) as object (e.g. *sich waschen*)

(2) Clauses in which the accusative object is a part of the body (e.g. *den Kopf schütteln*)
(3) Clauses with a cognate object (e.g. *einen Tanz tanzen*)
(4) Clauses in which the accusative object and the verb are closely connected (e.g. *Schritt halten*)
(5) Clauses in which the accusative object indicates content or quantity (*etwas enthalten*)
(6) Clauses in which the accusative object indicates instrument or placement (e.g. *Flöte spielen/Kopf stehen*)
(7) Clauses the subject of which cannot act (e.g. *der Finger juckt mich*)
(8) Clauses with neutralized subject (*es friert mich*)
(9) Clauses that indicate a static situation (e.g. *Staub bedeckt die Bücher* [*sein*–passive is possible])
(10) Clauses with verbs of the "*haben*–perspective" (e.g.*haben/besitzen/empfangen/erhalten etc.) (Duden Grammatik (1972:493f))*.

It should be mentioned in this connection that the *Duden Grammatik* considers the following cases possible: in (2) clauses of the type *die Hände werden von ihm zum Zeichen der Unterwerfung gehoben*, in (3) and (4) clauses of types *der erste Tanz wurde vom Brautpaar getanzt* and *es wird Schritt gehalten* respectively; the latter two cases will not be considered any further in the following as, strictly speaking, they are not polyvalent verbs; the former, however, will be briefly mentioned in another connection, cf. chapter 5 below.

The *Duden* list appears fairly chaotic and is actually an example of what may happen, or rather what invariably happens when language use and language system are kept apart, that is, when the analysis of language is limited to a mere collection of data: It is difficult to appreciate any difference in the connection between the verbs and their objects in (4) and (5); the confrontation of indications like *content/quantity* in (5) and *instrument/placement* in (6) is unmanageable, and it must be characterized as exaggerated to simulate a connection between the elements *instrument* and *placement*. (7) is further to be considered an overgeneralization as clauses like *er wurde von einem Auto von oben bis unten bespritzt* and *das Holz wurde von den kräftigen Wellen angeschwemmt* are fully acceptable even though they do not contain subjects which may act according to their own will; the demand concerning the ability to act on the part of the subject or the agent is a consequence of much too limited understanding of the passive voice, which, by the way, is seen in many other works on the passive.[3] Syntax (4) and semantics, sometimes of the subject (7), sometimes of the object (5) and (6), and sometimes even of the verb itself (9) and (10) are included without taking the system into consideration – there is no systematic common denominator for the lack of passivizability of the accusative selecting verbs.

The passivizability of the intransitive polyvalent verbs is treated more uniformly, and here a common denominator is actually established: passivization is only possible when the individual verbs may be considered *"Tätigkeiten der Menschen (oder doch lebender Wesen)" (Duden Grammatik* (1973:93)); **auf einem Irrtum wird von dieser Aussage beruht* and **es wird von ihm gealtert* vs *es wird ihm [von mir] nachgeeifert* (ibid.). It cannot be denied that passivizable polyvalent intransitive verbs are actional, but this is not the explanation of their passivizability, rather, it is a coincidence. As already mentioned, the agentive element does not have the influence traditionally attached to it. Methodologically speaking it is infelicitous that the passivizability/non–passivizability of the transitive and intransitive verbs is not considered together, but the former under *"Satzbaupläne"*, the latter in connection with the general description of the passive.

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[3] For the various definitions and conceptions of the passive, cf. Lauridsen (1987:4–95).

Under the headline *"Verben ohne Passivfähigkeit"*, the 1984 edition renders some main points on non–passivizability, once again registering rather than systematizing (Duden 1984:182f): mentioned are (i) verbs with body parts as object, (ii) verbs with measures/amounts as object, (iii) verbs of the "*haben*–perspective", (iv) the expressions *es gibt/es setzt*, (v) *kennen/können/wissen*, (vi) verbs with particularly closely connected objects, and (vii) reflexive verbs. As it was the case in the 1972 Duden, a more detailed account is given under the "*Satzbaupläne*" (Duden 1984:608), and here we find an approach which essentially resembles that of the 1972 edition, only, items (4) and (6) have now, reasonably enough, been put together and item (10) has been left out. Thus some of the more disturbing individual problems are removed – the syntactic equality of the objects in (4) and (6) is fully recognized[4], and the after all wrong account of (10) is removed.[5] The passivizability of the polyvalent intransitive verbs is basically treated as in the 1972 edition, and when all is said and done, there are thus no important differences between the two editions; more details have been taken up, certain problems are removed – the basic approach, however, is the same.

2.1.2. Helbig and Hertzka (Lauridsen (1987:161–65))

Helbig, whose important contribution to the linguistic research of the passive is actually comprised in Helbig/Buscha (1984), works much more cogently than does the *Duden Grammatik*. According to Helbig, the passive is primarily characterized by the fact that the subject does not have the case role *agent* which, then, is defined "*als belebt vorgestellter Urheber einer Handlung, Träger einer Tätigkeit, Täter*" (Helbig/Buscha (1984:165 and 560). In other words, behind every passive there must be an agentive element, and for this very reason verbs like *ähneln, entsprechen, fehlen, kosten*, and *wiegen*, and verbs which indicate "having something" or "getting something" respectively, that is, verbs of the so–called "*haben*–perspective" mentioned above are not passivizable.

Helbig is here quite in line with Hertzka who already in 1910, though with other words and concepts, established this condition for passivizability (1910:11). This results in another problem, however: the passive of verbs like *hören, sehen, auffassen*, etc. is fully possible, and the subjects of *these* verbs are not agents. Hertzka does not include examples such as these at all, whereas Helbig attempts to do so by claiming that the relevant verbs are only immediately passivizable when the subject in a given use or in a given situation may be interpreted as a pure agentive: in *die Sonnenfinsternis ist von uns gesehen worden* the verb *sehen* has the meaning "watch" which demands an agent, and the passive is consequently acceptable; contrary to this the passive may be objectionable in another connection: in the example *der Unfall ist von uns gesehen worden* the verb *sehen* has the meaning "be present by coincidence", and there is thus no agentive element present and the example must be labelled less grammatical. It is claimed that the subjects of the verbs *hören*, *sehen*, etc. apart from their basic functional–semantic status as "*Erkenntnisträger*", "*Wahrnehmungsträger*", etc. may also contain an element of agentivity, and since the subjects are then semi–agentive, the passives are only semi–correct – to put it a bit polemically, cf. Helbig/Buscha (1984:71, and especially 170).

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[4] Contrary to the 1972 edition, the 1984 Duden does not mention that passives of type "es wird Schritt gehalten" are in fact possible.

[5] Of course *Staub bedeckt die Bücher* as well as *Lärm erfüllt die Halle, Flüchtlinge verstopfen die Straße and so on (Duden 1972:494) can be passivized, only, there is obviously no pragmatic need for such constructions; hence the label "after all wrong".*

It is methodologically infelicitous that certain purely syntactic factors (that is, the fact that certain verbs may actually be passivized contrary to the basic understanding of the passive), that pure surface structure mechanisms dictate the introduction of a kind of semantic case; all the more so because Helbig derives such semantic cases from factors of predicate logic which must be regarded as external to language itself and do not enter into any interrelationship with syntax, cf. Helbig (1982:11). Furthermore, a number of informants (cf. further below) have unanimously indicated that they fully accept both passives, that is, *die Sonnenfinsternis ist von uns gesehen worden* as well as *der Unfall ist von uns gesehen worden*, and it thus becomes apparent once again how difficult it is to connect the idea of the agent with the passive, and that a number of adjustments are required when this functional–semantic element is considered a decisive factor in the contrast ± passive; at this point it should also be mentioned that the limitation of the agentive to [+anim], which Helbig has obviously adopted from Fillmore (1968:24), is not reasonable, cf. the above–mentioned examples *er wurde von einem Auto von oben bis unten bespritzt* and *das Holz wurde von den kräftigen Wellen angeschwemmt*. Another important reason for objecting to the presence of an agentive element as a precondition for passivization is the fact that agentive reflexive verbs (*sich waschen*) plus agentive verbs with objects which refer to a piece of clothing (*er zog den/seinen Mantel an*) or to a part of the body (*er hob die Hände*) cannot generally undergo passive transformation although there are sporadic exceptions to this rule, cf. chapter 5 below; such cases are also just mentioned in passing by Helbig, cf. Helbig/Buscha (1984:172).

2.1.3. Steube and Walther (Lauridsen (1987:166–68))

Quite different from the works of *Duden* and Helbig is that of Steube and Walther, who consider all the not passivizable polyvalent verbs derivations from a basic voice in which the logical subject and the logical object equal the grammatical subject and the grammatical object respectively. It is then a characteristic of the not passivizable derivations that the basic voice relation is broken and as a consequence of this the grammatical subject becomes identical with the logical object; thus *mich* in e.g. *mich überkommt die Lust* is logical subject but grammatical object, and the whole utterance is to be understood as being derived from *ich empfinde plötzlich stark die Lust*. This last example and similar ones are regarded as non–passivizable because their subjects *ab ovo* must be interpreted as showing relations between syntactic and logical factors similar to those of the passive; the latter is assumed to be present in exactly the sentences whose grammatical subject is different from the logical subject, cf. Steube/Walther (1972:19ff). An attempt at a universal theory, but not an unproblematic one: it is impossible to construct reasonable derivation bases for a number of non–passivizable verbs such as *enthalten* and *umfassen*; this is just mentioned in passing by the authors who at the same time disregard some of the other problematic cases of the research on the passive such as *betreffen*, *gleichen*, *kosten*, *passen*, *wiegen*, etc., cf. Steube/Walther (1972:22). Moreover, some of the bases postulated seem rather strained; a typical example of this would be *man kann großes Gedränge sehen* given as the basis for the nonpassivizable *es gibt großes Gedränge*; here the possibility factor *kann* is suppressed without good reason, cf. Steube/Walther (1972:21), and the authors have to use such and similar tricks on a number of occasions.

The basic concept of Steube and Walther – like that of Helbig – cannot account for all the instances of lacking passivizability and can therefore not be characterized as a coherent system, either. Only a subset of the examples is accounted for, and even so it is not without breaks in the methodology. In addition to this, none of the theories can explain the possible, but rarely occurring passives of the type *das Heilmittel wird vom Kranken gebraucht*. To a much too large extent they operate with an either–or. Like Helbig, the authors limit themselves to only mentioning that the passive is not possible with otherwise clearly passivizable verbs with a noun phrase referring to a part of the body as object and add further that the same conditions apply where other object noun phrases are determined by a reflexive possessive pronoun (e.g. *er wusch sein (i.e. eigenes) Kind*), cf. Steube/Walther (1972:22f); however, this type of mere listing just weakens the basic points of view.

2.1.4. Beedham (Lauridsen (1987:42–5))

Another attempt at a general theory has been presented by Beedham. For inexplicable reasons he only includes perfective verbs in his basic analysis and on the basis of these he is then able to conclude that the passive is a perfect aspect, cf. Beedham (1982:84), and only verbs compatible with it are passivizable, cf. Beedham (1982:62–73 and 95–100); among a host of exceptions is then, for instance, *bekommen*, perfective, but not passivizable and, in addition, the large number of fully passivizable imperfective verbs. His theory must therefore be labelled exotic rather than useful.

2.2. The Literature Concerning Danish Passivizability

2.2.1. Mikkelsen (Lauridsen (1987:160f))

Danish linguistic research has not contributed to the establishment of the passive–blocking mechanisms in any significant way. In his *Ordföjningslære* from 1911, reprinted 1975, Mikkelsen proceeds to a large extent like the *Duden Grammatik*, cf. Mikkelsen (1975:377f), and he primarily lists the non–passivizable verbs. He does not limit himself to mere listing, however; in a number of cases he tries to explain the lack of passivizability, e.g. in connection with verbs like *and**, *ligne, tilhøre,* etc.; he claims that these verbs are not connected with direct object (*genstandsled*), but with indirect objects (*hensynsled*) (1975:378), and of these two types of object, the latter is given the general characteristic of being more loosely connected to the verb than is the former (1975:85). In his general description of the constituents, Mikkelsen maintains that the subject of a passive clause is identical with the real object for the event expressed by the verb, that is, with the object of the active clause, and he thus actually sketches an explanation. However, it is very difficult objectively to measure the strength of two relations between constituents (*verb – direct object* as opposed to *verb – indirect object*), and since in his description of the indirect object, Mikkelsen claims that the loose connection to the verb of the indirect object – compared to that of the direct object – is seen in the fact that it cannot become the subject of the clause in a passive construction, that is, that the passive transformation cannot be carried out with verbs that only require an indirect object (ibid.), there is actually nothing much to gain from his explanation. Mikkelsen is not the only one to argue in such a circular way, however; Erben (1980:241) uses exactly the same line of reasoning in connection with *angehen, kosten,* etc.

2.2.2. Hansen (Lauridsen (1987:156))

Hansen only deals with the lack of passivizability connected with the reflexives, but contrary to the above–mentioned authors he is close to a reasonable explanation: the fact that the reflexive verbs are not passivized is due to the fact that this would be without any sense at all because the agent and the patient are identical, cf. Hansen (1976,III:146). Part of the truth is hidden behind these words, a point I shall demonstrate in chapter 5 below.

3. PASSIVIZABILITY AND VERB VALENCY (LAURIDSEN (1987:96–150))

As it has already been mentioned, and as it will be apparent in the following, linguistic research has actually not offered any really useful tools for language specific or contrastive studies and it is therefore compulsory to break new ground if one wants to discover the features that determine passivizability. Even at a quite early stage of my work I was convinced that the relation between syntactic and semantic valency was of decisive importance; I was obviously inspired by the works of Mikkelsen, Hertzka, and Helbig, and even though their ideas were far from unimpeachable, I decided to follow this lead.

3.1. Syntactic Valency

As far as syntactic valency is concerned, I decided to follow Helbig closely even though I naturally realized, and still realize, that there are certain Gordian knots in his systems and that not all the details of his description are satisfactory[6]; however, it seems impossible to deny that, all things considered, Helbig's system of valency is by far the most useful of the systems considered; it is comfortably down to earth and comfortably without any theoretical extravaganzas that are more or less unmanageable.

3.2. Semantic Valency (Lauridsen (1987:97–149))

To find a suitable basis for semantic valency is much more problematic. Since the first articles by Fillmore in 1966 and 1968 the market has literally been flooded with contributions to case theory, and most of the authors of these have established their own sets (small or large) of cases. The general problem for case theory has been and still is the status, number, and types of cases. For obvious reasons I shall here refrain from any attempt at presenting a state of the art; instead I shall focus on some of the main points which may explain why I chose not to follow directly in the footsteps of others. In the following only the works of Charles Fillmore are included, not because they are to be criticized more than others, on the contrary, but rather because the problems considered there are of a general character and are thus found in just about all the rest of the literature on the subject.

In Fillmore's article "The Case for Case" (1968b) the case roles are obviously considered universal categories, and that makes any serious work with them impossible in connection with valency. Even though Fillmore uses the concept of "relationship" about his cases in various connections, e.g. (1968b:21), and claims that these cases relative to the verb via the whole proposition (ibid.:51), that is, the clause without the systems of for instance tense, mood or aspect (ibid.:23), he does carry out a categorization in his heavily stressed idea that cases or case combinations select the verbs (ibid.:27–31 and footnote 34, p.26) and not the other way round, a procedure which would seem reasonable if it was really a question of relations; moreover, the categorization is seen in the fact that special semantic features such as [±hum], etc. are attached to the case roles.

Fillmore was heavily criticized for this, and he tried to sharpen his points of view in "Some problems for Case Grammar" (1971). Already before "The Case for Case", in 1968 and 1969, he tried to establish a connection between a level of predicate logic and a level of case semantics in a couple of lexicalist studies, cf. (1968a) and (1969). In my opinion these studies are important because they contribute to the idea of the relational status of the case roles. He reconsidered this principle in 1971, but he did not reach satisfactory results; he does not establish any system in his work, and he only considers one single abstract superordinate predicator, **[cause]**; he does not presuppose any hierarchical structure in the predication, but regards it as identical with the proposition of the actual clause, which is the same as a linear constituent structure (1971:especially 255). As a consequence of this he actually does not operate on predication structures, but on lexicalized verbs.

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[6] A survey of Helbig's many works on valency is found in Helbig/Schenkel 1975.

In 1977 Fillmore finally dealt with the problems concerning the number and types of semantic cases in the article "The Case for Case Reopened". He assumes that groups of verbs attach themselves to various scenes; *sell, spend, buy, pay, cost* are thus connected to the so-called "commercial event" which always involves a buyer, a seller, some goods, and some money. *Sell* is then used to bring the seller, the goods, and perhaps the buyer into perspective, *spend* focuses on the buyer and the money, and *pay* on the buyer and the money or the buyer and the seller, etc. (1977:72f). It cannot be denied that the basis of this viewpoint is an idea of predicate logic, but unfortunately it is not carried through: certain relations such as 'buyer' and 'seller' are introduced, and on the lexical level they are realized as case roles. This last point can only be inferred because it is not explicitly expressed anywhere in the article. In cases where the 1971 article did not distiguish clearly, the 1977 one shows certain indications of a taxonomy. Unfortunately they are confused by the basic concept of scenes, however, because this is totally subjective: How many scenes and what scenes are found in the language and in the real world? The problem about the number and types of the case roles has been exchanged with the number and types of the scenes.

In order to get hold of the status of the case roles one way or another, I assumed that they are derived from argument relations on the level of predicate logic, again with due reference to Helbig, who has defended this point of view since the early 1970s, cf. 2.1.2. If as an example one considers the Danish verb *give* or its German counterpart *geben*, the idea of the theory is that its actual use is determined by a given situation in the objective world represented in the human mind; this representation, which is in actual fact identical with the meaning structure of the verb, may be expressed in terms of predicate logic as follows:

caus(x(incep(hab(y,z))))
Verbalized: an x acts in such a way that there is a change so that y has z

When this idea is lexicalized, all the predicators are included in the verbal theme, and the relations of the arguments to their individual predicators are realized as case roles; it follows from this that they are lexical features and belong to the meaning of the verb only. Helbig does not establish any taxonomy for the level of predicate logic; I therefore included the theses of Arutjunow and tested them critically on all of the 292 lemmata in the valency dictionary by Helbig and Schenkel, altogether about 3,000 meanings – or, in my opinion, individual verbs because the so-called meanings are due to the choice of basically different arguments. I further tested the Danish equivalents of these 3,000 verbs plus a group of generally problematic verbs, that is, verbs which are generally problematic as far as passivization is concerned and which are not found in the valency dictionary.

It very quickly became apparent that Arutjunow's approximately 50 primitive or elementary predicators are not all primitive and elementary, on the contrary; the majority of them are derived from or compounded by a much smaller number, namely:

adesse (x) = x exists
caus (x,y) = x acts so that y
cogn (x,y) = x has the information y
correspond (x,y) = x corresponds to y
func (x) = x functions in accordance with its nature
hab (x,y) = x has y
idem (x) = x remains x
incep (x) = x starts
loc (x,y) = x's concrete or abstract placement in relation to y
manag (x,y) = x has power over y
mov (x) = x moves
opin (x,y) = x means y
pars (x,y) = x is a part of y
parv (x) = x is small
sign (x,y) = x is characterized by y
simil (x,y) = x equals y
spect (x,y) = x relates to y
uno (x,y) = x and y establish a unity
vict (x,y) = x is superior to y

I then further added:

dur (x,y) = x lasts y
min (x,y) = x is smaller than y

With these altogether 21 predictors and a small set of modifiers which primarily influence the concept on the aspectual level: the truth function **non** and the conjunction ∧, which I venture to interpret as an accompanying circumstance, I have been able to describe the meaning structure of the verbs, their semantic nucleus as this is reflected in a given situation in the objective real world. I determined altogether five different argument relations, namely:

the object relation (=BG):
the concrete or abstract object for the predicator

the relation of causing factor (=BIE):
the causer of the content of the predicator

the relation of the psychic starting point (=BPA):
the starting point for a psychic process or a situation expressed by the predicator

the relation of the possessing factor (=BV):
the entity to whose advantage or disadvantage an object appears

the limiting relation (=BO, BU, BZ):
relations of place (BO), quantity (BU), and condition (BZ) which specify the relation between the first argument and the predicator

The arguments are obviously abstract and on the basis of this it will be understood that they cannot be combined with specific semantic features; in connection with the **causing factor** for instance, it is therefore not interesting whether or not it can act according to its own will in the real objective world.

The verbs consequently group themselves in three classes: one with **caus** as the dominating predicator (*causative verbs*), one with **incep** as the dominating predicator (*transitional verbs*), both of which are then *dynamic* (*dynamic verbs*), and finally one **without any of these two** which is then *stative* (*stative verbs*). When this basic principle is combined with the presence of the above listed argument relations, a taxonomy in accordance with the following matrix appears; here the ordinate indicates the distinctions **±caus/±incep** and the abscissa the types of argument relations:

<table>
<tr><th colspan="2">Specification acc. to predicator type and argument relation
Semantic type</th><th>Basic type</th><th>Experientative type</th><th>Benefactive type</th><th>Terminative type</th></tr>
<tr><td colspan="2" rowspan="3">Stative verbs</td><td rowspan="3">BG
"existieren"</td><td>BG+BPA
"hören"</td><td>BG+BV
"haben"</td><td rowspan="3">BG+BO v BU v BZ
"sein"<br>"dauern"<br>"stehen"</td></tr>
<tr><td>BG+BPA+BZ
"finden" (etw. gut)</td><td>BG+BV+BO
"schulden"</td></tr>
<tr><td colspan="2">BG+BV+BPA "beneiden"</td></tr>
<tr><td rowspan="3">Dynamic verbs</td><td>Transitional verbs</td><td>BG
"enstehen"</td><td>BG+BPA
"entdecken"</td><td>BG+BV
"gewinnen"</td><td>BG+BO v BZ
"ankommen"
"werden (zu)"</td></tr>
<tr><td rowspan="2">Causative verbs</td><td rowspan="2">BG+BIE
"tanzen"<br>"schlagen"</td><td>BG+BIE+BPA
"erschrecken"
"erzählen"</td><td>BG+BIE+BV
"geben"<br>"unterstützen"</td><td rowspan="2">BG+BIE+BO v BZ
"gehen"<br>"werfen"<br>"machen zu"</td></tr>
<tr><td>BG+BIE+BPA+BU
"antworten"
"bitten"</td><td>BC+BIE+BV+BO/U
"helfen"<br>"schicken"</td></tr>
</table>

It must be said immediately that these predicators and relations are mere postulates to the same extent as are the cases of Fillmore and other linguists; however, to me they are not universals or something similar, but some entities of description chosen for practical purposes, that is, they are a kind of common denominators which may serve the purpose of discovering the individual meaning structures.

As already mentioned I consider Helbig's semantic cases as reflections of argument relations on the level of predicate locate logic, and this status implies that the types and number of case roles must equal those of the argument relations. On the lexical level I then have five cases, namely:

objective	(=o) corresponds to the object relation
agentive	(=a) corresponds to the relation of the causing factor
experientative	(=e) corresponds to the relation of the psychic starting point
benefactive	(=b) corresponds to the relation of the possessing factor
terminative	(=t) corresponds to the limiting relation

In the course of lexicalization all the predicators are included in the verb stem, but arguments may be included as well. For instance, the situation "he helps somebody do something" implies that a person receives help, that is, an object relation, and this is a permanent part of the verb stem itself on the superior lexical level.

With this principle in mind, one reaches a taxonomy as the one sketched below since verbs with an expressed objective are labelled explicitly objective, whereas verbs with an included objective are labelled implicitly objective:

<table>
<tr><th colspan="3">Specification acc. to case relations
Semantic type</th><th>Basic type</th><th>Experientative type</th><th>Benefactive type</th><th>Terminative type</th></tr>
<tr><td rowspan="4">Stative verbs</td><td colspan="2" rowspan="3">Explicitly objectivistic</td><td rowspan="3">o
"existieren"</td><td>o – e
"hören"</td><td>o – b
"haben"</td><td rowspan="3">o – t
"sein"<br>"dauern"<br>"stehen"</td></tr>
<tr><td>o – e – t
"finden" (etw. gut)</td><td>o – b – t
"schulden"</td></tr>
<tr><td colspan="2">o – b – t "beneiden"</td></tr>
<tr><td colspan="2">Implicitly objectivistic</td><td></td><td>e – t "wundern"</td><td colspan="2">b – t "brauchen"</td></tr>
<tr><td rowspan="5">Dynamic verbs</td><td colspan="2">Transitional verbs</td><td>o
"enstehen"</td><td>o – e
"entdecken"</td><td>o – b
"gewinnen"</td><td>o – t
"werden (zu)"<br>"landen"</td></tr>
<tr><td rowspan="4">Causative verbs</td><td rowspan="2">Implicitly objectivistic</td><td rowspan="2">a
"tanzen"</td><td>a – e
"erschrecken"</td><td>a – b
"unterstützen"</td><td rowspan="2">a – t
"gehen"</td></tr>
<tr><td>a – e – t
"bitten"</td><td>a – b – t
"helfen"</td></tr>
<tr><td rowspan="2">Explicitly objectivistic</td><td rowspan="2">a – o
"schlagen"</td><td>a – o – e
"erzählen"</td><td>a – o – b
"geben"</td><td rowspan="2">a – o – t
"werfen"<br>"machen zu"</td></tr>
<tr><td>a – o – e – t
"antworten"</td><td>a – o – b – t
"schicken"</td></tr>
</table>

4. THE RESULTS OF THE ANALYSIS (LAURIDSEN (1987:151–225))

Having analysed somewhere between 6,000–6,500 verbs in order to determine their structure in terms of predicate logic, I chose altogether approximately 1,300 typical ones and classified them according to the taxonomy above. I then had 100 informants test the passivizability of the individual tokens in order not to rely on introspection alone. I am fully aware of the serious problems connected with informant tests, but as far as non–passivizability is concerned there is no other possibility. Text corpora are obviously of no help when it is a question of non–occurrence. Positive possibility, on the other hand, may be analyzed on the basis of corpus data, but in 1986/87 I had no access to such corpora and I was forced to base my analysis on the informant tests.

The results of these were quite unambiguous and very much in line with my own assessments:

1. **Danish and German causative accusative selecting verbs and verbs requiring a prepositional object (cf. the table above) are all fully passivizable with only a few sporadic exceptions to the rule** *(købe/kaufen, sælge/verkaufen, bede om/bitten um, tale til/sprechen zu* **etc.***)*

1a. **The passive of Danish and German causative verbs with an obligatory or optional adverbial complement indicating direction is regarded as inadequate** *(gå, løbe (til byen)/(in die Stadt) gehen, laufen* **etc.***)* **(cf. chapter 5).**

1b. **The passive of German causative verbs which only accept a complement in the genitive or the dative is regarded as possible, but definitely conspicuous and unusual** *(gedenken, helfen,* **etc.).**

2. **Among the Danish and German transitional and stative verbs, those that have a subject ("Nominativergänzung") with the case role objective are NOT passivizable** *(ske (der skete ham intet ondt)/geschehen (es geschah ihm nichts Böses), tilhøre (det tilhører mig)/gehören (es gehört mir),* **etc.).**

That German prefers the active of otherwise passivizable verbs with non–accusative and non–prepositional arguments, that is, arguments in the genitive or the dative is probably due to the fact that the majority of the verbs that select these cases cannot be passivized in the first place because of the clash of the subject and the objective; in other words, the system lacks productive analogy patterns.

Apart from 1b, a German speciality, the above items represent a considerable structural concord between Danish and German, but in other cases with no subject–objective clash the systems differ.

As far as Danish is concerned, it is a general principle that all verbs with the feature subject ≠ objective are passivizable. The exceptions are few and far between, an example would be the stative benefactive *have* (*•en hund haves af drengen*), and the stative benefactive–terminative *behøve* (*•din medvirken behøves af os*) as well as the transitional benefactive verbs *få* and *finde*, the latter with the meaning "get" (*han fandt tid til ...*) and thus different from the causative *finde* = "find". As far as I can see, these examples do not indicate any real collapse of the system: rather, the non–passivizability seems to be caused by external factors: the benefactive terminative trivalent verb *have* (*have bogen i samlingerne*) is fully passivizable, it actually occurs most frequently in the passive, cf. the example *(bogen) haves på Det kongelige Bibliotek* – a remark often found on library requisition forms. This highly frequent use of the stem *hav–*, which is obviously related to the normal verb of possession *have* but at the same time conspicuously deviant from it, has so to speak monopolized the passive, or better still, in order not to confuse things, language use in general refrains from passivizing the normal *have*. Similar circumstances are found with the verbs *få, finde, and behøve*. There is *de facto* a *få* in the passive, actually primarily in the passive, *fås* with the modal factor "is available" *(mærket fås i alle førende forretninger)* – and like *haves*, this *fås* has monopolized the passive in order to avoid ambiguity. While *haves* and *fås* are close to being in the medium voice since the active form has more or less disappeared, it must be taken for granted that it is the highly frequent medium verbs that prevent *behøve* and *finde* (="get") from being passivized. *Behøves* (cf. *der behøves adskillige undersøgelser, før resultatet foreligger*) = "be necessary" and *(der) findes* = "(there) is/exists" prevent the passivization of the actives *behøve* and *finde*, a passivization that would lead to a clash between the passive and the medium voices and a consequent ambiguity. External factors also determine the non-passivizability of *komme på (en tanke), komme til (penge)*: transitional, but non-passivizable *komme* is often used in abstract connections (cf. *komme i en vanskelig situation*), and the relatively high frequency of such examples influences the passivizability of the verb stem negatively. For the same reason agentive *komme ind på* and *komme tilbage* only occur in the active.

Before turning to the passivizability of German stative and transitional verbs the subjects of which do not have the functional-semantic status objective, I shall briefly account for the choice between Danish *-s* and *blive*-passive in the present tense; only the present tense will be considered here because in the past tense there are some limitations connected with the stem-final sounds, cf. Mikkelsen (1975:379f), and as a consequence of these the analogy patterns of the *-s-* passive in the past tense are weak and the form becomes altogether less frequent.

As far as the causative verbs are concerned the relevant form is chosen according to aspect: the *-s*-passive is primarily used in connection with non-perfectivity and the *blive*-passive in connection with perfectivity; in other words, *taget bæres af søjler* is chosen rather than *taget bliver båret af søjler*, and *forbryderen bliver henrettet i dette øjeblik* rather than *forbryderen henrettes i dette øjeblik*. Where the present tense has a future meaning the same conditions apply.

In opposition to this, the informants with surprising consistency prefer the *-s*-passive to the *blive*-passive with the stative and transitional verbs (*byen anes i kimingens rand/brevet modtages af direktøren)*, so here it must be concluded that other mechanisms than the aspectual ones are decisive. As far as I can see, historical factors are crucial here: the *-s*-passive is a new formation in the North Germanic languages, developed from reflexive constructions (*-s* < generalized enclitic reflexive *-sik*). Reflexives in no way presuppose an external causing force; this condition then lives on in the *-s*-passive which may immediately be combined with the non-agentive verbs. Then there is the *blive*-passive (originally *verða*- passive) which seems to have generally required a causing element. This line of thought is supported by modern German, and it should be mentioned in passing that I have carried out a small analysis of the passive in Gothic in order to get an idea of the passive at an earlier stage of Germanic, and this analysis shows that non-agentive verbs never occur in the Gothic equivalent to the *blive-/werden*-passive with the auxiliary *wairpan*, but only in the ancient, heavily reduced medium voice or in the *wisan*-passive, that is, the equivalent of the *være-/sein*-passive. If the above assumptions are correct, and a number of factors indicate that they are, we may conclude that, as far as Danish is concerned, there is a mixture of the systems: on the one hand an aspectual one for the causative verbs and, on the other, a primarily functional-semantic one for the stative and transitional verbs. It is feasible that the functional-semantic distinction is the older of the two: When the original reflexive form took on a clearly passive meaning and became a variant to the complex passive, i.e. the *blive*–passive in modern Danish and the *werden*–passive in modern German (actually also unique in an Indoeuropean connection), it, in accordance with its origin, presumably first comprised the verbs not implying an agentive in the relatively broad sense of the term used here and therefore perhaps not able to occur in the periphrastic form. Since the *-s*–passive, as a kind of side effect, contains a durative element, and since the majority of the verbs occurring in this form are stative, the language was supplied with an aspectual expression which was gradually generalized with the agentive verbs.

As I have claimed above, the functional–semantic point of view also applies to the German transitional and stative verbs without the clash between the objective and the subject. It actually turns out that the verbs totally devoid of any influence from the subject do not occur in the passive, and this is probably where we find the explanation to the fact that *haben, besitzen, empfangen, kennen,* and *wissen*, to mention but a few, cannot be passivized while at the same time the passive form of *sehen, hören*, etc. is accepted. Independent of whether one hears or sees something consciously or unconsciously, the senses are dominated by the will of a human being and are therefore ultimately controllable whereas this is not the case with "having" and "getting".

It is interesting that the informants are unsure about a number of verbs. This goes for *ärgen, langweilen,* and *wundern* among others, and is probably due to the fact that a controlling factor is possible, but less obvious; to be quite banal, if you are bored by a book, you may put it away, but the boring factor, if one may say so, is external. The two verbs *erben* are also an instructive example here; they may be taken to mean "to inherit something which is now in one's possession" and "to inherit something biologically" respectively. The informants are uncertain when faced with an example of the former, and because one may refuse to accept an inheritance of this kind, it must be maintained that only a relative control is present. A passive form of the verb in the latter sense is flatly refused, however, and this is in immediate accordance with the fact the possession of various physical characteristics is totally out of the control of the individual. It cannot be denied that considerations such as these may seem almost comically simple, but the reaction to such a reaction must be something like: it is compulsory that linguistic mechanisms are hard to manage, very abstract and non–transparent? As a last point it should be mentioned that the passive of transitional and stative verbs with arguments in the genitive or the dative (e.g. *gedenken* and *mißtrauen*) are subjected to the same rules, in principle at least, but the active form is generally preferred as it is the case with causative verbs also selecting the genetive or the dative and for the same reasons.

Why then this controlling element? As already mentioned it was presumably the case at earlier stages in the development of the language that only the agentive verbs were compatible with the complex passive, Danish *blive*–passive, German *werden*–passive; all other passivizable verbs occurred in the now obsolete medium voice found as late as in Gothic, cf. above. When the medium disappeared there was obviously still a need to be able to passivize, and since the German language did not develop any equivalent to the Danish *-s*–passive, the use of the *werden*-passive spread. On the other hand, the agentive element connected with the complex passive was so strong that only verbs which comprise a factor at least partly corresponding with the causative element are compatible with this form.

5. CONSEQUENCES

All this must have some implication for the understanding of the passive – which characteristics of the passive prevent the use of this form when the grammatical subject is an objective on the functional–semantic level? If one assumes that every verb lexeme, when it occurs in a syntactic string, arranges the elements of the situation which is to be described or expressed in a given hierarchy of relations, the individual positions of which have a given, very abstract content, one may approach an explanation. I claim that the subject is a kind of fixed point, a point of origin for the verbal expression, and the object/objects are the point/points of what is affected or involved, and I consider this *semantico–syntactic* circumstances even though that might not be in accordance with tradition. It is here not a question of a functional sentence perspective even though what I am talking about here may correspond to what. It is rather a kind of first basis from which one may operate further. In the course of passivization the object of the active form becomes the subject of the clause whereas the original subject occurs in a prepositional phrase or disappears altogether. While the active thus sketches a situation with the subject as the fixed point and an orientation towards the point affected, the passive voice orientates the verbal expression away from the subject and fixes it within the sphere of the point affected. It is obvious that in actual fact the content of "being affected" is very similar to the content or meaning of the case role objective, that is, what is involved, what is the object. I actually assume that this is a content which, in contrast to others, functions at several linguistic levels. If an accusative selecting verb has a subject which from a case–semantic point of view is objective, e.g. *kosten*, then there is a relation between the verb and the subject on the functional–semantic level which is identical with the one which might be obtained by means of passivization, and if a passive transformation was then carried out, there would be an orientation, on the functional–semantic level, away from the sphere affected by the verb, and the language does not accept that.

As far as the verbs of movement (cf. la, chapter 4) are concerned, the reason why their passive is classified as inadequate is that the semantics of these verbs focuses so strongly on direction that any fixation in the sphere of the point affected is made impossible.[7]

So far I have strongly focused on the fixation of the passive in the sphere of the point affected. In order to gain a full understanding of the problems of passivizability, however, the orientation away from the fixed point of the active clause must also be taken into account; as a matter of fact, this explains, to put it very briefly, why reflexive verbs and verbs whose object is a noun phrase referring to either the clothing or the body part of the subject noun phrase are not passivized: there is no breach with the sphere of the fixed point and in the case of passivization the situation would still be connected with it. Already Hertzka (1910:3f and 5ff) and, as mentioned above Hansen, introduce ideas similar to these, but without systematizing them. In certain limited cases, passive transformation of such complexes is allowed, but informants are generally sceptical about them. In German the passive form of reflexive verbs always occurs without any indication of the agent, and the verbs must therefore be considered absolute with the reflexive being a part of the predicate without any reference; in Danish the verb is "dereflexivized" as the reflexive disappears, cf. *kranse frabedes* (Lauridsen (1987:153–157)). Similarly, the informants are doubtful about passives like *benene strækkes!*, that is, passives of complexes in which the object noun phrase of the active clause refers to a body part of the subject noun phrase, they are only accepted when they are used as imperatives (as a consequence of this the exception of the *Duden Grammatik*, cf. 2.2.2, must be generally rejected). As it was the case with the passive form of the reflexive verbs, we must here speak about an absolute use of the verb – the reference to an active subject is suppressed and the subject of the passive clause becomes part of the verb itself, cf. Lauridsen (1987:226f).

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[7] Verbs of movement have lexicalized the point affected; so *gå/gehen* e.g. indicate "x causes x to move to y", the second x being lexicalized (and y being an optional complement), cf. Lauridsen (1987:214f).

It is obvious that a system like the one sketched here may be broken and is broken, cf. apart from the above Dürrenmatt's *Hier wird nur gestorben (Der Verdacht)*[8] and an example corresponding to Dürrenmatt's *Skulle der dø'es, så døde mam uden læge* (Hansen (1976:III:50)). But the deviations from the system found in the parole do not seem to challenge the basic principle: Danish allows passivization in almost any case where the subject is not an objective whereas German requires an element of controllability in connection with the transitional and stative verbs. The more wide-spread use of the passive in Danish is due to the special -*s*-form.

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[8] Quoted by Erben (1980:85).

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EQUIVALENCE AND TRANSLATABILITY OF ENGLISH AND ARABIC IDIOMS

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I. INTRODUCTION

Despite recent developments in the field of translation theory and application, idiomatic expressions still pose a serious challenge for translators and foregin teachers. The present paper proposes a general theoretical framework or model for dealing with the various problematic aspects of idioms in translation. It provides an operational definition of idioms, investigates their types and context of occurrence, and discusses constraints they impose on the translation process with special reference to Arabic and English. It then proposes a model of how different types of idioms may be transferred from source language into target language.

II. DEFINITION AND TYPES OF IDIOMS

In *A First Dictionary of Linguistics and Phonetics*, Crystal defines idiom as:

> "A term used in GRAMMAR and LEXICOLOGY to refer to a SEQUENCE of WORDS which is SEMANTICALLY and often SYNTACTICALLY restricted, so that they function as a single UNIT. From a semantic viewpoint, the MEANING of the individual words cannot be summed to produce the meaning of the 'idiomatic' expression as a whole. From a syntactic viewpoint, the words often do not permit the usual variability they display in other CONTEXT, e.g. it's raining cats and dogs does not permit *it's raining a cat and a dog/dogs and cats, etc. (Crystal (1980:179); also see Bolinger (1975:99–107); Duff (1981:89–92); Faser (1976:103); Lyons (1969:177–78); and Kane (1983:366)).

Notice, for example, that the idiom "to run oneself out" means to be completely exhausted, which is not the sum of the meaning of the verb to "run" and the adverbial particle "out". Nor is the meaning of the idiom "with one's back to the wall" the same as the total meaning of the six words comprising it. Furthemore, observe that one can "go against the grain", but cannot go against the seed or the grains, nor can the grain be gone against by somebody. Also observe that we can say "the child is running a temperature" but cannot say *a temperature is being run by the child. We can certainly ask somebody to "cough up" his/her savings but under no circumstances can we ask people to sneeze their savings. What has been said about English idioms also applies to Arabic idioms. The Arabic idiom "yadāka awkata wa–fūka nafax", means "you are to blame" although the total meaning of the individual words comprising it adds up to "your two hands tied and your mouth blew". ʕāda bixuffay Hunain" is anothe Arabic idiom which means "he returned empty–handed" although the total meaning of its three words is "he returned with the slippers of Hunain". Also observe that we cannot substitute *waṣal* (he arrived) or *sāra* (he walked) for *ʕâda* and still have an idiom.

English idioms can be lexemic, phraseological, and proverbial as in "hammer and tongs", "to fly off the handle", and "don't wash your dirty linen in public" respectively (Boatner and Gates 1975:V–VI). Furthermore, lexemic idioms can be verbal (verb + particle combination), nominal, adjectival, and adverbial as in "break in", "hot dog", "pepper and salt" (in "his hair is pepper and salt"), and "hammer and tongs" (in "she ran after him hammer and tongs") respectively (Boatner and Gates 1975:IV–VI).

Arabic idioms can also be lexemic, phraseological and proverbial as in "šaħm wanār" (fat and fire (complete opposites)), "ʕala ʕēni/rāsi" (on my eye/head (with pleasure)), and "man sāra ʕala al–darbi waṣal" (he who walks no the road will get there, (he who takes the first step will eventually achieve his aims)). Arabic lexemic idioms can also be verbal, nominal, adjectival, and adverbial. However, Arabic verbal lexemic idioms do not occur with particles. The Arabic equivalent for "he broke into the house" is "iʔqtaħama al–bayta" or "daxala albayta ʕunwatan", which means he entered the house by force. It is to be observed here that "iʔqtaħam" means "daxala ʕunwatan". Thus Arabic verbal lexemic idioms are made up of either the verb alone or the verb followed by an adverbial nominal.

III. DIFFICULTIES WITH TRANSLATING IDIOMS

One major area of difficulty with regard to translating idioms is misinterpreting the intention of the original writer or speaker. In Arabic, "fataħa al–bāba" may have both a literal and an idiomatic/metaphorical sense. Literally, it translates into "he opened the door"; idiomatically, it translates into "he established a precedent". This also applies to "sakkara al–bāba", which means he closed the door, or he put an end to something. The Arabic idiom "ibn ħarām" can be used in the literal sense to mean an illegitimate son or in the metaphorical sense to mean "son of a gun", which is a compliment.

Cultural differences among languages comprise another area of great difficulty for translators and interpreters with regard to both traditional and innovating idioms. The English idiom "a fox is not taken in the same snare twice" is equivalent to the Arabic idiom "la yuldayu al–muʔminu min juh̄rin wāh̄idin maratayn", the English translation of which is "A good believer will not be stung from within the same hole twice". In English, people "look a gift horse in the mouth"; in Arabic a person can be "šaħħād umitšarriṭ", which is also the equivalent of English "beggars and choosers". When an Englishman dies we say "he kicked the bucket", but if an Arab dies we say "sallama al-amanata" i.e. he handed over/delivered what he was entrusted with, which is a reference to the soul leaving the body. The Arabic idiom "θulθēn al-walad laxala", which can be translated into English as "two thirds of the body's traits can be ascribed to his mother's brother", does not have a corresponding idiom in English. The best we can do is to say that he takes after his uncle. What this means is that for a translator or an interpreter to produce a translation that is true to the original he must be at home with both cultures and both languages.

Without a thorough knowledge of both cultures the translator or interpreter will be at a complete loss to translate idioms which carry a heavy semantic load that is culture specific. The Arabic idiom "yujīdu alh̄azza wayusību almifsal" can be literally translated into English as "he is good at cutting, and hitting the joint", which is nonsensical to a native speaker of English. An interpreter/translator from Arabic into English can give the equivalent English idiom "he hit the nail on the head" only if he knows both the exact meaning and context in which the idiom is used.

Sometimes, when the translator/interpreter is faced with innovating or traditional idioms which are completely alien to the target language, he can only resort to explaining the cultural concept as shown in (IV.d) with regard to the concept of *jāha*, which is explained in the footnotes.

IV. CORRESPONDENCE OF IDIOMS IN SL AND TL

Idioms in SL and TL may fall within the following categories:

a. Expressions and functions correspond in both languages (Newmark 1982:123);
b. Functions correspond in both languages but expressions are completely different;
c. Functions correspond but expressions differ slightly;
d. Both expressions and functions differ and are language specific.

The above four correspondence categories allow us to make the following predictions:

a. When expressions and functions correspond, the resulting translation will be correct and idiomatic in both languages. Assuming that the translator is a native speaker of one language and has native-like competence in the other, he should encounter no serious difficulties in rendering any such SL idioms into the corresponding TL ones as shown in the following examples:[1]

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[1] Most English Idioms given in this paper are taken from Boatner and Gates' *A Dictionary of American Idioms*, Bruce Frasers's *The Verb-Particle Combination*, Hornby's *Oxford Advanced Learner's Dictionary of Current English*, and Julie Howard's *Idioms in American Life*. With regard to Arabic idioms, the authors consulted Hani al-ʕamad's *al-Amthalu ul-Shaʕbiyyatu al-Urduniyya* (Jordanian Folk Proverbs). Abu Sofa's *Al-Amthalu al-ʕarabiyyatu Wamaṣadiruh̄a* fī al-Turāth (Arab Proverbs and Their Sources in the (Arab) Heritage), Abu al-Hassan al-Wah̄idi's *Kitāb al-Waṣeeṭ fi al -Amthal* (The Right Anthology of Proverbs), Rudolph Sellheim's *Al-Amthalu al-ʕarabiyyatu al-Qadeemah* (Arabic Old Proverbs), and Hans Wehr's *A Dictionary of Modern Standard Arabic*.

A large number of Arabic idioms were also provided by a class of ten students enrolled in the M.A. in translation programme at the Language Centre of Yarmouk University.

ENGLISH IDIOMS	ARABIC IDIOMS (WITH A WORD-FOR-WORD ENGLISH TRANSLATION)
– Play with fire	yalʕabu bin–nār 'he plays with the fire'
– Pull the rug out from under (a person)	yasħabu as–sijādata min taħti 'he pulls the rug from under šaxsin mā a person specific'
– Put words into one's mouth	yaḍaʕu lkalimāti fī fami 'he puts the words in the mouth l–ʔinsān of the person'
– Turn over a new leaf	yabbaʔu ṣafħatan jadīdah 'he starts a page new'
– Wash one's hands of	yaɣsilu yadayhi min 'he washes his hands from'
– To shed crocodile tears	yaɣrifu dumūʕa ttamāsīħ 'he sheds tears of the crocodiles'
– I am all ears	kullī ʔāðānun (sāɣiyah) 'all of me ears listening'
– When the cat is away the mice will play	ɣāb ilquṭ ilʕab yā fār 'was absent the cat play mouse'
– Bury one's head in the sand	yadfinu raʔsahu fi rrimāl he burries his head in the sand'
– Curled her lips	zammat šafatayha 'she curled her two lips'
– Go to bed with the chickens	yanāmu maʕa ṣṣīṣān 'he sleeps with the chickens'
– Foam at the mouth	yurɣī wayuzbid 'he foams and lets out froth'
– Between life and death	bayna lħayāti walmawt 'between the life and the death'
– Beat one's head against the wall	yaḍribu raʔsahu fi lħāʔiṭ 'he hits his head in in the wall'
– At death's door	ʕalā abwāb ilmawt 'on the doors of the death'
– At the tip of his tongue	ʕalā raʔsi lisānih 'on the tip of his tongue'
– To tell a white lie	yakðibu kaðibatan baiḍāʔ 'he lies a lie white'
– Save one's hide	yanjū bijildihi 'he survives with his skin'
– To hold out the olive branch	yarfaʕu ɣusna zzayūn 'he raises the branch of the olive (tree)'
– Walls have ears	al–judrānu lahā ʔāðān 'the walls for them ears'
– Got the lion's share	ħaṣala ʕalā naṣābi llasad 'he got on the share of the lion'
– Love is blind	ʔal–ħubbu aʕma 'the love blind'

– He pokes his nose in everything	yadussu anfahu fi kulli šay? 'he pokes his nose in every thing'
– He is light–handed	yaduhu xafīfah 'his hand light'
– She's up to her ears	hiya γāriqatun ħattā uðunahhā 'she is drowing up to her two ears'

b. When the functions correspond but the expressions are completely different, the translator's task becomes more demanding due to interference between SL and TL at the level of expression. In this case, the translator must either find the right idiom in TL, or render a translation of the meaning of the idiom as best as he can. Translating the meaning of the idiom is to be resorted to only if the translator fails to locate the corresponding idiom. The following are examples of such idioms.

ENGLISH IDIOMS	ARABIC IDIOMS (WITH A WORD-FOR-WORD ENGLISH TRANSLATION)
– Between the devil and the deep blue sea	bayna fakkay kammāšah 'between the two jaws of a pair of pincers'
– At sixes and sevens	ra?san ʕalā ʕaqib 'head on back'
– Trade in	yuqāyid 'to exchange something for something else'
– Waste one's breath	yudayyiʕu waqtahu 'he wastes his time'
– We behind the ears	γirr 'novice'
– Dry behind the ears	miħannak 'experienced'
– Armed to the teeth	mudajajun bissilāħ 'heavily armed with weapons'
– Like a bear with a sore head	kalafʕā almaqtūʕu ðanabuhā 'like the snake the cut its tail'
– She's white	maxtūfun lawnuhā 'taken away her color'
– He has bats in his belfry	m?ajjir ttabiq θθāni (colloq) 'renting the floor the second'
– A fox is not taken in the same snare twice	lā yuldaγu lmu?minu min 'not he stung the faithful from juħrin wāħidin maratayn a hole one twice'
– Once in a blue moon	maratan fi lʕumr 'once in the life span'
– Lock the barn door after the horse is stolen	sabaqa ssayfu lʕaγal 'it precededt he sword the blame'
– To lose one's tongue	yurtaju ʕalayhi 'to be closed on him (to be unable to speak)'
– Make a pass at	yuγāzil/yuʕākis 'he makes a pass at'

– Make hay while the sun ahines	ʔiða habbat riyāħuka faɣtanimhā 'if it blew your winds then seize them'
– Everything comes to him who waits	As–sabru miftāħu lfaraj 'the patience (is) the key of the relief'
– If you want a thing done, do it yourself	mā ħakka jildaka miθlu ðufrik 'neg. scratched your skin like your finger–nail'
– When in Rome do as Romans do	dārihim mā dumta fī dārihim 'treat them nicely as long as you are in their house'
– One is never too old to learn	utlub lʕilma mina lmahdi 'seek/ask the knowledge from the cradle ilā llaħd to the grave'
– Forbidden fruit is sweetest	kullu mamnūʕin marɣūb 'everything forbidden (is) desired'
– Diamonds cut diamonds	la yafullu lħadīda illa lħadīd 'neg. it dints the iron but the iron'
– If you are Marconi I am Einstein	in kunta rīħan faqad lāqayta 'if you were wind then truly you faced ʔiʕṣārā a tornado'
– on the horns of a dilemma	ʕala kaffi ʕifrīt 'on the palm of a devil'

c. Idioms in which functions correspond but expressions differ slightly do require the translator to pay special attention to the areas of difference in expression between SL and TL. However, they are not as problematic as the idioms in (b) above where functions correspond but expressions do not. Needless to say, they are more problematic than idioms in (a) above where both functions and expressions correspond. The following are a number of examples of such idioms:

ENGLISH IDIOMS	ARABIC IDIOMS (WITH A WORD-FOR-WORD ENGLISH TRANSLATION
– To hold the reins	yumsiku bizimāmi lʔumūr 'the holds with the reins of the things'
– He was the scape–goat	kāna kabša lfidāʔ 'he was the ram of the sacrfice/ransom'
– Money begets money	lmāl bijurr māl (colloq.) 'the money attracts money'
– She stoopes to conquer	ibtitmaskan ħatta 'she feigns humility so that titmakkan (colloq.) she will establish herself/have control'
– A wolf in a sheep's skin	ðiʔbun fī jildi ħamal 'A wolf in the skin of a lamb'
– He is still green	mā yazālu ɣaḍḍan 'he is still brittle/soft'
– To lose one's head	yafqidu ṣawābah 'he loses his mind'
– She was the apple of her father's eye	kānat gurrata ʕayni abīhā 'she was the joy of eye of her father'

– He was a thorn in the flesh	kāna šawkatan fi lħalq 'he was a thorn in the throat'
– Cannot make heads or tails of something	lā yaʕrifu ra?sahu min rijlayh 'neg. he knows his head from his feet'
– At one's back and call	rahna l?išārah 'subject to the sign/call'
– By heart	ʕan ðahri qalb 'by/on the back of a heart'
– Blood is thicker than water	iddam ma biṣīr mayya (colloq.) 'the blood neg. it becomes water'
– Call a spade a spade	qul lali?war i?war 'say to the one–eyed person (he is) one eyed'
– The fat in the fire	wallaʕat 'it kindled, it cannot be controlled'
– Double talk	ħadiθ mbaṭṭan 'speech lined (with other implications)'
– Eat one's words	yashabu kalāmah 'he withdraws his speech (his words)'

d. When expressions and functions differ in both SL and TL, the translator's task becomes extremely difficult. Not only is he required to have almost complete mastery of both SL and TL linguistic system but also a deep understanding and awareness of the SL and TL culture and way of life. Without being fully immersed in both cultures, the translator is likely to find himself helpless and rendering inaccurate literal translations that are extremely difficult if not impossible to understand. The following are examples of this category of idioms:

ARABIC IDIOMS (WITH A WORD-FOR-WORD ENGLISH TRANSLATION)	ENGLISH MEANING
miθil imm lʕarūs (colloq.) 'like the mother of the bride'	doing nothing
aljamalu yaʕruju min šafatihi 'the camel limbs from its lip'	to suffer for the wrong reason
lbāb by θsaʕ jamal (colloq.) 'the door it accommodates a camel'	get lost/nobody is stopping you from leaving
infataħla bāb ssama 'it opened for him the door of the sky'	fortune smiled on him
lfaras min ilfāris 'the mare is from the rider'	the rider/jocky is more important than the horse
kul šāh mʕallaka bʕarkū bha (colloq.) 'every she–goat is hung with / from its tendon'	everyone is on his own
iððīb ma bōkil illa lɣanam 'the wolf not it eats but the sheep ssārdah (colloq.) stray / untended'	a house divided against itself can't stand/disunity leads to vulnerability.
iṭṭūl ṭūl naxlah 'the height height of a palm tree wilʕakil ʕakil saxlah (colloq.) and the mind mind of a baby she goat'	– tall but hollow (immature)

ʕaððama llāhu ajrakum 'he multiplied Allah your reward'	may Allah reward you greatly for your loss (this is what people say when offering their condolences to the family of the deceased)
šakara llāhu saʕyakum 'he thanked Allah your efforts'	may Allah reward you for your efforts (this is said by the family, and relatives of the deseased to those who have offered their condolences and are taking their leave)
ijjāha lfālha finjānha 'the jāha the successful its cup ma bubrud (colloq.) not get cold'	the efforts of a successful jāha[2] are always productive
xaṭiyit lwalāya 'what accrues from wronging the women bithid izzawāya (colloq.) it destroys the cornerstones'	wronging women engenders havoc onto the wrongdoer
min šihid 'who praised/gave favorable evidence laiʕarūs? imha uxālitha for the bride her mother and her aunt uʕašarəh min ħāritha (colloq.) and ten from her neighbourhood'	I don't believe what you are saying about him/her for there is a special relationship between the two of you, i.e. you are not a disinterested party.
lā tōxið fārah wimha 'not take a she-mouse and its mother fil ħārah in the neighbourhood'	do not marry a girl whose mother is still around.
yilʕan sabāħ abūh (colloq.) 'curse the forehead of his father'	let his father be damned.
kird yiħimlak (colloq.) 'a monkey it will carry you'	get lost, beat it.
taqabbal llāh 'accepted Allah'	may Allah accept (your prayer / deeds)
jamal almaħāmil (colloq.) 'the camel of litters'	the one we depend upon
ṣalli ʕala nnabī 'pray (imp) on the prophet'	– it can be the equivalent of anyone of the following utterances: a– forget about it: I don't want to talk about it now, b– don't fight among each other; be patient, c– may the prophet bliss/grace somebody/something.

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[2] When a man wants to get engaged to a lady, he usually arranges for a number of dignitaries to go to the lady's father's house in order to formally ask for her hand on his behalf. The delegation usually comprises the man's father, important persons from among his relatives, and important people from the local and nearby communities. These people are called a *jaha*. Once they reach their destination, they are usually received by the lady's father and his relatives. A short time after that and once the guests are seated, their host offers them coffee to drink. The guests take a cup each but do not drink the coffee. Their leader tells the lady's father that he and his colleagues will not drink the coffee unless they are granted their request, which is the host's approval that his daughter be engaged to the man on whose behalf they are acting. If the lady's father agrees to this they become happy and drink their coffee before it gets cold. If, on the other hand, their request is not granted, they don't drink the coffee which thus gets cold. Jaha is also resorted to in settling all sorts of disputes ranging from minor physical injuries to murder.

sawwad llah wijhak (colloq.) 'blackened Allah your face'	may Allah disgrace you for what you did
ana ðību̇ak (colloq.) 'I (am) your wolf'	you can depend on me.
ʕalā ħabil īdaka (colloq.) 'on the rope of your hand'	It is yours, you may have it (if you really like it). It is said to anybody who tells you how beautiful a garment you are wearing is.
iħlam ʕalay (colloq.) 'dream (imp.) on me'	please be patient.
wāħ ad ṭabil / l'ħ 'one a drum board'	an ignoramus/empty–headed person

ENGLISH IDIOMS	ARABIC TRANSLATION
– turn in	yaʔwī lilfirāš / linnawm 'go to the bed / the sleep'
– turn down	yarfud 'to refuse'
– take it on the chin	yataqabbal alʔmra birūhin 'to accept the matter with spirit riyādiyyah having to do with sports'
– talk through one's hat	yatakallamu bidūn tafkīr 'to talk without thinking'
– wear out one's welcome	yajʕalu nafsahu yayra muraħhbin bihi 'he makes himself not welcome'
– work one's fingers to the bone	yabðulu qusāra jahdihi 'he exerts the utmost of his effort'
– to get in Dutch with somebody	yaqaʕu fī muškilatin maʕa šaxṣin ma 'he falls in trouble with a person some'
– he is a lady killer	huwa maʕbūd assayidāt 'he (is) the one worshipped by the ladies'
– to lay somebody out in lavender (slang)	yuwabbixu šaxṣan mā 'he rebukes a person some'
– lip service	mujarrad kalām 'no more than talking'
– she looked daggers at him	jaharathu 'she looked at him very angrily'
– not to let grass grow under one's feet	la yuḍīʕu lwaqta 'he does not waste the time'
– lose heart	yafqidu lʔamal 'he loses the hope'
– lose one's heart	yaqaʕu fī lhubb 'he falls in the love'
– on the rocks	fī waḍʕin sayyiʔ 'in a situation bad'
– pass the buck	yaḍaʕu llawma ʕala lāxarīn 'he places the blame on the others'
– pour oil on troubled water	yaxaffifu min ħiddat lʔumūr 'to lessen from the sharpness of the matters'

– private eye	muxbir sirrī 'informer secret'
– saw wood / gourds	yašxur 'to snore'
– sow one's wild oats	yiʕmal ʕamaylah (colloq.) 'he does his deeds'
– he is pushing up the daisies	ʔinnahu mayyit 'he is dead'

V. CONCLUSION

This paper has provided a working definition for idioms, specified their types, and presented evidence to the effect that English and Arabic idioms constitute a major area of difficulty for translators and interpreters. It has also examined a large corpus of English and Arabic idioms and arrived at a theoretical framework for dealing with the translatability of idioms. According to this framework, an idiom can be assigned to one of four categories of correspondence between Arabic and English idioms. The framework also predicts degrees of difficulty of translating an idiom from one language into another. Following are the four correspondence categories in a descending order of difficulty:

a– Idioms with no correspondence between expression and functions, i.e. expressions and functions are language specific.

b– Idioms with corresponding functions in both languages but with completely different expressions.

c– Idioms with corresponding functions in both languages, but with slightly different expressions.

d– Idioms with corresponding functions and expressions in both languages.

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UNIVERSALS IN INTERLANGUAGE PHONOLOGY: THE CASE OF BRAZILIAN ESL LEARNERS

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1. INTRODUCTION

A major question that has occurred frequently in the second language (L–2) phonology literature has been how to explain phonological errors and learning difficulty. One of the earliest theories put forward, the Contrastive Analysis Hypothesis (Lado 1957), holds that learning difficulty and errors in the target language can be predicted by a systematic comparison between the native and target languages. According to this theory, the areas of the languages that overlap will not pose any difficulty, but the areas that only partially overlap or that do not overlap at all will be a source of difficulty for the L–2 learner. However, the predictive power of the Contrastive Analysis Hypothesis has been seriously questioned because of empirical evidence accrued through research studies. The earliest of these studies was done by Brière (1966), whose research investigating the Contrastive Analysis Hypothesis demonstrated that only part of the error hierarchy found and only some of the errors could be accounted for by native language transfer.

Since then, other factors in addition to transfer, such as age (Ioup and Tansomboon (1987)) sociolinguistic variability (Beebe (1980), L. Dickerson (1975); and Schmidt (1977)), anxiety (Stolen 1987), developmental processes (Mulford and Hecht (1982); Major (1987); and Wode (1976)) and language universals (Eckman (1977, 1981); Tarone (1980); and Anderson (1983)) have each been found to be related in some way to the language learner's interlanguage phonology. Of particular interest in the present study, are language universals because they can make predictions not only about the types of errors that occur but also about the relative difficulty of target language sounds.

2. BACKGROUND

2.1. Language Universals

The term "language universals" is used here generically to include universals of both language and language learning. Included in the discussion below are: (1) universals of content; (2) universalist theories of first language (L–1) acquisition; and (3) universalist theories of L–2 acquisition.

The term "universals of content" (Wolfram and Johnson (1982)) refers to forms which are widespread across the phonemic inventories of languages of the world. An example can be found in vowel systems. Crothers (1978) has shown that all languages have at least three vowels: /i/, /a/, and /u/ in their phonemic inventories, and the most common type of vowel system is one that contrasts five vowels. Further, individual vowels can be predicted on the basis of the universal forms. For example, a language with four or more vowels has /ɛ/ or /i/ in its vowel system, and languages with more than five vowels generally have /ɔ/ in their systems. In other words, some of the sounds in languages exist in hierarchical or implicational relationship with other sounds. Thus, in the vowel example cited above, /ɛ/ can be said to imply the existence of /a/, /i/, and /u/. The same kind of implicational relationship also exists for consonants. For example, voiceless obstruents tend to be more widespread across languages than their voiced counterparts, and any language that has voiced obstruents will always have the corresponding voiceless obstruents (Sloat, Taylor and Hoard (1978)).

The term "universalist theories of language acquisition" as it is used here, refers to theories which posit specific acquisition sequences or phonological processes in L–1 acquisition. Jakobson (1941) formulated predictions about L–1 acquisition sequences based on a universal hierarchy of structural laws determining the frequency of occurrence and distribution of sounds in particular languages. His theory predicts, for example, that voiceless consonants are acquired before their voiced counterparts, and that stops are acquired before nasals, followed by fricatives and then liquids.

Stampe's (1969) theory of natural phonology, on the other hand, is concerned with phonological processes rather than developmental sequences of sound segments. His model of phonology assumes that the phonological system of a language is governed by a system of universal processes which act as automatic responses to articulatory pressures, leading to a modification of sounds which results in easier articulation (e.g., reduction of consonant clusters in English). He theorized that language acquisition involves a gradual suppression of these natural processes as the learner acquires the phonological rules of a language, which are different from processes in that they lack universality and are often not well motivated phonetically (e.g., the velar softening rule in English).

However, within the field of L–1 acquisition, disagreement exists as to the extent to which such theories of language development can accurately predict actual learning sequences and developmental processes. Macken and Ferguson have noted that the widespread individual differences among children acquiring the same language have led to a "shift away from a deterministic linguistic model toward a flexible model that accomodates variation in development by acknowledging the role of the child, the diversity of input, and the variety of possible solutions" (1981:115).

They hold that each child's exploration and regularization of the linguistic input s/he receives can result in different acquisition sequences and phonological processes. Nonetheless, in spite of individual variation, certain trends have been observed in L-1 development that are widespread across many children.

Language universals have also been explored, although to a more limited extent, in L-2 acquisition. Eckman (1977) was one of the first researchers to apply the notion of universals to L-2 acquisition; however, his theory incorporates elements of native language transfer as well as typological universals. He argues that the predictability of the Contrastive Analysis Hypothesis is greatly improved when language universals are also taken into account. The theory states that those areas of the target language which differ from the native language and are more marked (less natural) will be difficult and that the relative difficulty will correspond to the relative degree of markedness of the structures investigated. The areas of the target language that are distinct from the native language but are unmarked will not be difficult.

Anderson (1983) tested Eckman's theory in an L-2 study on the difficulty of English syllables for two groups of language learners: native speakers of Egyptian Arabic and Chinese. Because Egyptian Arabic syllable structure is closer to that of English than that of Chinese, it was predicted that the Arabic group would perform significantly better than the Chinese group on English syllables similar in structure to syllables in Egyptian Arabic. While this was confirmed, it was also found that the markedness differential hypothesis correctly predicted the relative difficulty of most of the cluster types investigated for each group. Thus, although the absolute scores were generally higher on most types of clusters for the Arabic group, the same hierarchy of errors was found for both groups, and the hierarchy was correctly predicted by the notion of "markedness" (Eckman 1977). Initial clusters, which were considered natural or unmarked, were easier than final clusters, which were considered more marked because of their more limited occurrence across the languages of the world. In addition, shorter clusters, which were considered unmarked or natural, were easier to learn than longer clusters.

However, while language universals and markedness may play a role in L-2 acquisition, it is also important to consider the extent to which variability occurs in the acquisition process. Just as variability was found among children acquring L-1 phonology (see Macken & Ferguson 1981) it must also be dealt with in L-2 acquisition.

2.2. *Variability in L-2 Acquisition*

Koutsoudas and Koutsoudas (1983) have noted that in L-2 acquisition studies, each subject may be different from the others and his/her L-2 performance may be heavily influenced by individual characteristics such as the dialect spoken in the native language, length of instruction received in the target language, length of residence in the country where L-2 is spoken, motivation to learn the L-2, and so forth. In other words, one can expect that the problems encountered during L–2 acquisition might vary from person to person.

In addition to individual differences, another factor that L–2 researchers need to consider is the problem of sociolinguistic variability. That is, the fact that different social situations will trigger different speech styles. When delivering a lecture, for example, one might use a different speech style than if one were talking to a friend. Consequently, phonological forms have been found to vary according to the formality of the social situation (Labov 1966). Supporting sociolinguistic variability in L–2 acquisition, Nemser (1971), L. Dickerson (1975), and W. Dickerson (1977) have shown that the more formal the task, the more formal the style used by the learner and consequently, the fewer the number of errors.

In conjunction with task variability, one also needs to consider the problem of the testing situation. Researchers (Wolfram and Johnson (1982)) have shown that the subjects' performance also tends to vary according to the way they are tested. For example, interviews with the use of a tape recorder very often produce a careful speech style, no matter how formal or informal the task is.

To summarize the review of literature presented above, universalist theories such as those put forth by Jakobson (1941) and Stampe (1969) have not been completely supported by empirical research on children. It has also been found that variation exists among children resulting in different patterns of development. Similarly, in L–2 acquisition, while some evidence has been put forward supporting the influence of language universals on L–2 development, individual differences, and the effect of sociolinguistic variables on L–2 performance have also been found to play a role in acquisition.

Before presenting the predictions of difficulty for the present study, it is first necessary to compare and contrast the phonological systems of American English (hereafter AE) and Brazilian Portuguese (hereafter BP) since this study investigates the difficulty of certain AE sounds for native speakers of BP.

3. CONTRASTIVE ANALYSIS BETWEEN BRAZILIAN PORTUGUESE AND AMERICAN ENGLISH

The contrastive analysis of AE and BP phonology discussed below is based on Azevedo's (1981) analysis.

3.1. The vowel system

The AE vowel system has more vowel phonemes than BP does since the high vowels, /I/ and /U/; the mid–vowel, /ʌ/; and the low vowel, /æ/ do not occur in BP.

However, when considering the phonetic representation of both vowel systems, it becomes apparent that the AE /I/ and /U/ occur in BP as allophones of /i/ and /u/ respectively in unstressed position, as in "mistura" ([mɪstúra]) and "pular" ([pUlář). By the same token, AE /ʌ/ is very close to the BP [ɔ], which is an allophone of /a/, found before a nasal consonant (i.e., "chamo" – ['sɔmu]) and in final unsed position (i.e., "folha" –['fol̃ə]). The tense vowels /i/ and /u/ are approximately equivalent in BP and AE, except that in AE they are slightly longer and somewhat glided.

The only entirely new AE vowel for the BP speaker is the low front vowel, /æ/, since it is not equivalent on the phonemic level to any BP vowel and does not occur at all on the phonetic level.

3.2. The consonant System

When comparing the consonants of BP and AE, one observes that AE /č/, /ǰ/, /θ/, /ð/, /ŋ/, and /h/ do not exist in BP as phenomes. However, an examination of the phonetic representation of the consonants of both languages reveals that the only AE consonants that cannot be found in BP on the phonetic level are /θ/, /ð/, /ŋ/, and /r/. The affricate sounds [č] and [ǰ], which are phonomes in AE, are allophones of /t/ and /d/ respectively in BP and [h] is an allophone of /ř/, in BP.

On the other hand, although the "r" is realized differently on the phonetic level in BP and AE, the fact remains that both languages have "r" phonemes. BP has both a trilled–r phoneme as well as a flap–r, both of which have several phonetic realizations. English, in contrast, has one "r" phoneme, a retroflex "r" which has voiceless and voiced phonetic variants.

When considering the differences and similarities between the consonant and the vowel systems of BP and AE, the sounds fall into different categories according to the type of comparison or contrast. One category includes sounds such as the bilabial nasal "m", which exist in both languages on the phonemic and phonetic levels, the BP and AE sounds having almost exactly the same phonetic realization. On the other hand, there is another category of sounds containing sounds such as "l", which while identical on the phonetic level, belong to different phonemes in each language. In contrast, there is yet another class of sounds containing sounds such as the "r", while equivalent in some sense phonemically, are realized differently phonetically in each language. Finally, there are sounds in each language that do not correspond to any sound in the other language, either on the phonemic or phonetic level. There are four such sounds in AE – the "θ", "ð". "ŋ", and "æ", which are completely absent in BP.

It is this last category of sounds that is of particular interest in the present study because the sounds are completely new to the BP speaker. Because none of the sounds corresponds in any way, either phonetically or phonemically, to sounds in BP, no differences in difficulty among the four sounds can be predicted on the basis of the Contrastive Analysis Hypothesis. This allows predictions of difficulty to be made based on other factors, such as language universals, allowing the results to be interpreted unambiguously.

3.3. Predictions of difficulty

The major purpose of this study is to determine whether language universals can predict the order of difficulty of AE sounds that do not occur in BP, either phonetically or phonemically. As noted above, the sounds that meet this requirement are

/θ/, /ð/, /ŋ/, and /æ/. In addition, another AE vowel, the mid–central vowel, /ʌ/, will be included. The BP vowel [ə] is almost identical to the AE [ʌ] occurring as an allophone of the vowel /a/ in unstressed syllables and before nasal consonants. It will serve as a point of comparison for the four new sounds investigated. The study will investigate the relative difficulty of these sounds for native speakers of BP learning AE as a second language. The study will also investigate the types of errors that occur and will attempt to categorize them according to their source. The predictions of relative difficulty will be based on universal implicational relationship that have been found across languages on the world and from universals of L–1 acquisition, in particular, those proposed by Jakobson (1941). Eckman's MDH is not used here to make predictions, since the sounds investigated are all new or zero–category sounds, except for the [ʌ] which is a BP sound included as a point of comparison.

Implicational universals and universals of language acquisition make several predictions of difficulty for the sounds under investigation. As noted above in section 2.1., Jakobson's theory predicts that L–1 sounds are acquired based on a universal hierarchy of structural laws that determine the frequency of occurrence and distribution of sounds in particular languages. Specifically, his theory predicts that nasals are ordered before fricatives in his acquisition hierarchy. What this predicts for the present study is that the nasal /ŋ/ will be easier than the fricatives /θ/ and /ð/.

In addition, as noted earlier, it has been reported (Sloat, Taylor and Hoard (1978)) that voiced obstruents are not as widespread across languages of the world as their voiceless counterparts, and that whenever a voiced obstruent has been found in a language, the corresponding voiceless form has also been found, but the converse is not true. What this predicts for the present study is that the voiceless fricative, /θ/, should be easier than its voiced counterpart, /ð/.

Predictions of difficulty based on language universals can also be made as to whether a consonant will be easier to pronounce as a single consonant or in consonant clusters and whether a consonant is easier to pronounce in word–initial or word–final position. As noted above, Greenberg (1978) has shown that across languages of the world any consonant occuring in a cluster will also occur as a single consonant, but the converse does not hold. A consonant may occur alone while not occurring in clusters. What this predicts for the present study is that consonants will be easier to pronounce as single consonants than in consonant clusters. Greenberg (1978) also showed that initial clusters are more widespread, approximately four times more common than initial clusters across the languages of the world. It is also well known that the CV syllable is more natural than the CVC syllable. What these facts predict for the present study is that consonants in initial position should be easier to pronounce than consonants in final position.

In addition to these predictions of difficulty based on language universals, another prediction can be made concerning natural phonological processes and errors. Stampe (1969) has argued that final obstruent devoicing is a natural process that occurs during L–1 acquisition. It is one of the processes that is later suppressed as the child learns the phonological "rules" of the language. On the other hand, voicing of final voiceless consonants is not considered a natural process. What this predicts for the present study is that devoicing errors for the voiced fricative /ð/ in word–final position will occur significantly more often than voicing errors for /θ/ in the same position.

In addition, to investigate the role of native language transfer, as a point of contrast for the predictions of difficulty based on language universals, the vowel /ʌ/, has been included in the study. As noted earlier, BP has a similar sound, the [ɔ], which occurs as an allophone of the low central vowel /a/. It is predicted that because this sound is not new, it will be easier than the other sounds investigated.

Variability is another aspect of L–2 performance that this study investigates. The data will be examined to determine the extent to which (1) individuals deviate from any dominant group patterns found; (2) task (formal vs. informal) affects variability; and (3) individuals may vary in performance at two different times on the same task. The only prediction to be made is that accuracy will be greater on formal tasks than on informal ones. This prediction is consistent with research findings from earlier studies (Nemser (1971); Johansson (1973); L. Dickerson (1975); W. Dickerson (1977)).

In summary, the following predictions of relative difficulty and errors are made:

1. The mid central vowel /ʌ/ is predicted to be pronounced more accurately than all other sounds investigated because it is not a new sound.
2. The velar nasal /ŋ/ is predicted to be pronounced with greater accuracy than the fricatives /θ/ and /ð/.
3. The voiceless interdental fricative, /θ/, is predicted to be pronounced with greater accuracy than its voiced counterpart, /ð/.
4. A consonant occurring alone will be pronounced with greater accuracy than when occurring in a consonant cluster.
5. A consonant in word–initial position will be pronounced with greater accuracy than in word–final position.
6. Accuracy in pronunciation will be greater on formal tasks than on informal ones.

4. METHODOLOGY

4.1. Subjects

The subjects for the study were eight Brazilian students pursuing either their Master's or Ph. D. degrees at Iowa State University. They were four females and four males ranging in age from 22 to 44. All the subjects had studied English in Brazil prior to coming to the U.S. with the amount of instruction ranging from four months to 13 years. The length of time spent in the United States varied from three months to three years and the TOEFL scores ranged from 500 to 613. The dialects represented by the sampling population were Carioca, Paulista, Mineiro, Gaucho, and Paranaense (see Table 1 for a summary of the subjects' profile).

All the subjects volunteered to participate in the study after having been contacted by the investigator and having been instructed on the purpose of the project.

TABLE 1. PROFILE OF THE SUBJECTS

Subject	Sex	Degree Being So-ught	Age	Length of Perman-ence in the U.S.	Amount of Instruction Prior to Coming to theU.S.	Dialect	TOEFL
A	F	M.A.	37	3 months	6 years	Carioca	600
B	M	Ph.D.	39	34 months	4 months (1)	Gaucho	560
C	M	Ph.D.	38	3 months	3 years	Mineiro	500
D	F	Ph.D.	36	36 months	— (2)	Carioca	590
E	M	Ph.D.	34	24 months	4 months (1)	Paulista	530
F	F	Ph.D.	44	24 months	7 years	Paranaense	580
G	M	M.A.	22	3 months	13 years	Mineiro	613
H	F	Ph.D.	30	12 months	5 years	Paulista	520

(1). Subjects attended an Intensive English Program

(2). Subject had lived in the U.S. for two years before returning for a Ph.D. program.

4.2. Procedures

The data were obtained through a test (see Appendix A) which was developed for the purpose of investigating the English phonemes /θ/, /ð/, /ŋ/, /æ/, and /ʌ/. The criteria against which the sounds were compared was native American English pronounciation, as spoken by an educated speaker.

The test contained three parts: Part I, in which the subjects were to read a word–list twice (Trials I and II); Part II, in which the subjects were to read a passage; and Part III, in which the subjects were asked to paraphrase the passage read in Part II. The test included these three tasks so that data about the subjects's articulatory skills could be captured on a range of tasks differing in the degree to which they should elicit "careful" versus "casual speech".

The first part of the test contained a word–list with the phonemes /θ/, /ð/ and /ŋ/, in word–initial, word–medial, word–final position both in isolation and in consonant clusters. The vowels /æ/ and /ʌ/ were both tested in essentially the same environments – in words which constituted either minimal or near–minimal pairs.

The words used in the test were of high frequency. Thorndike and Lorge's *Teacher's Word Book of 30,000 Words* (1952) was used as a resource, and words that occurred at least once per 1,000,000 words of running text were selected for the test. This category of frequency represents the most commonly occurring words. No help with meaning was given to the subjects, since it was felt the words should have been familiar to them.

Students read the word–list twice (Trials I and II), so that their performance on both trials could be compared. It is important to note that on Trial II, the words were presented in a different order than on Trial I.

The second part of the test contained a passage which included words with the target sounds in the same positions tested for in the word–list. The subjects read the passage first silently and then aloud. The third part of the test required the subjects to paraphrase the same passage in their own words.

In Part I of the test, the five target sounds appeared a total of 96 times; in Part II, they appeared a total of 95 times; and in Part III, the number of occurrences of each target sound varied from subject to subject.

The tests were given individually during a single meeting in a sound–proof room in the presence of only the investigator. All the instructions were given in Portuguese to ensure that the subjects clearly understood what they were expected to do.

The speech samples were recorded an a Sharp AV–2000 audio tape recorder for all three parts of the test, and the tapes were then transcribed phonetically in moderately narrow transcription by a native speaker of AE with training in phonetics.

4.3. Data Analysis

A score of one was given to a sound pronounced correctly. A score of zero was given for all substitution errors, and all errors for the same sound received the same score (e.g., [t] and [s] for θ were both counted as zero). Group mean scores were computed for each of the segments and consonant clusters investigated.

5. RESULTS

An analysis of variance was performed using the Statistical Analysis System (SAS) so that differences among the target sounds, the subjects, and the parts of the test could be accounted for. An analysis of variance was also performed for each of the consonants investigated to test whether performance differed depending on the position or environment tested. The differences found will be discussed separately below in the following order: (1) hierarchy of difficulty of individual sounds in all positions and environments tested; (2) single consonants versus consonant clusters; (3) consonants in initial versus final position; (4) a classification of errors; (5) subject variability; (6) task variability; and (7) trial variability.

The results reported are total scores combining the three parts of the test. However, when comparing positions and environments (single consonants vs. consonant clusters), only the scores from Part I of the test were included. Also, in comparing trial variability, only Part I of the test was used, and in comparing task performance, the three parts of the test are reported separately.

5.1. Hierarchy of difficulty

Results from the analysis of variance (see Table 2) indicated that the greatest source of variability was among the sounds investigated (p= .0001).

Table 2. ANOVA source table for score variability on eight subjects by three parts by five sounds

SOURCE	DF	SS	MS	F-VALUE	P-VALUE
Subject	7	8370.893	1195.842	2.43	0.0245
Part	2	499.684	249.842	0.51	0.6036
Sound	4	95084.091	23771.022	48.29	0.0001

A Tukey Honestly Significant Difference (HSD) test was then computed in order to determine which sounds differed from each other (see Table 3).

The predicted order is presented again formulaically below for ease of comparison:

1. /ʌ/ > /θ/, /ð/, /ŋ/, and /æ/
2. /ŋ/ > /θ/ and /ð/
3. /θ/ > /ð/

Results from Tukey's test indicated that the five sounds could be divided into three significantly different groups: (1) the easiest sounds /ʌ/ and /ŋ/; (2) the sound intermediate in difficulty, /θ/, and (3) the most difficult sounds, /ð/ and /æ/.

Table 3. Tukey's studentized range (HSD) test for the five sounds investigated*

Tukey Grouping	Mean	N	Sound
A	91.406	24	/ʌ/
A	79.903	24	/ŋ/
B	45.538	24	/θ/
C	23.836	24	/ð/
C	23.727	24	/æ/

*Sounds preceded by the same letter are not significantly different from each other

It can be seen that, except for the /ʌ/ and /ŋ/ sounds which were equal to each other in difficulty, the predicted order was confirmed.

5.2. Single Consonants vs. Consonant Clusters

All three consonants in this study were tested both as single consonants and in consonant clusters. An analysis of variance was computed to test whether there was a difference in performance when pronouncing /θ/, /ð/, and /ŋ/ separately or in consonant clusters. It was predicted that consonants would be easier alone than in clusters.

The results have shown that except for the voiceless interdental, /θ/ ($p > .05$), there was a difference according to whether the consonants were pronounced separately or in clusters. The voiced interdental, /ð/, was indeed easier when pronounced as a single consonant ($p < .05$), which agrees with the predictions made. However, contrary to what had been expected, the velar nasal, /ŋ/, was dramatically easier for the subjects when pronounced in consonant clusters ($p < .05$). Table 4 below summarizes the subjects performance when pronouncing /θ/, /ð/, and /ŋ/ as single consonants and in consonant clusters.

Table 4. Comparison of the subject's scores on the consonants /θ/, /ð/, and /ŋ/ as single consonants and as consonant clusters*

	Percentage of correct answers		
Sound	Single Consonant	Consonant Cluster	P level
/θ/	60.4%	52.1%	p >.05
/ð/	34.4%	15.6%	p <.05
/ŋ/	17.2%	96.9%	p <.05

*Due to the fact that the appearance of the target sounds was not consistent throughout the test, only the scores from Part I will be considered in Table 4

5.3. Initial vs. Final Position

For this study, /θ/ was tested in initial, medial and final positions, both as a single consonant and in consonant clusters. /ð/ was tested in the same positions as its voiceless counterpart, with the exception that it was not tested in consonant clusters in initial position since there are no initial clusters with /ð/ in AE. Therefore, /ð/ was tested twice in medial position (medial I and II in Table 5) but with the target sound appearing in a different order within that position. For example, the consonant /ð/, in words like "smoothness" was the first element in the cluster, but in words like "farther" it followed a consonant. Since the velar nasal does not occur in initial position in AE, it was only tested in medial and final positions, both as a single consonant and in consonant clusters.

It had been hypothesized that /θ/. /ð/, and /ŋ/ would be more difficult in final position since this is the least natural/more marked among the positions, and since consonant clusters as well as many single consonants do not occur in final position in BP. However, the results confirmed this prediction only for the voiced interdental, /ð/ (p <.05). For the voiceless interdental, /θ/, no significant difference was found among the different positions tested (p >.05). For the velar nasal, /ŋ/, final position was easier than medial (p <.05), which disconfirmed the expectations (see Table 5).

Table 5. Percentage of correct sounds for /θ/, /ð/, and /ŋ/ as single consonants and as consonant clusters, according to position

Sound	Single Consonant	% Correct Answers	Consonant Cluster	% Correct Answers
/θ/ position	1. initial	66%	1. initial	41%
	2. medial	59%	2. medial	62%
	3. final	56%	3. final	53%
/ð/ position	1. initial	44%	1. medial I (1)	6%
	2. medial	56%	2. medial II(2)	38%
	3. final	3%	3. final	3%
/ŋ/ position	1. medial	16%	1. medial	94%
	2. final	19%	2. final	100%

(1) Syllable final (e.g. smoothness)
(2) Syllable initial (e.g. farther)

5.4. Classification of errors

Error patterns for each target sound investigated will be discussed separately below. Tables 6 and 7 in Appendix B contain a list of all the substitution, deletion and epenthesis errors made by the subjects while attempting to pronounce AE target sounds.

5.4.1. The voiceless interdental: /θ/. For the voiceless interdental, the use of [t] was the most common error in all the positions tested either as a single consonant or in a consonant cluster. Other errors that occured were the use of the voiced stop [d̪] and fricatives such as [s], [z], and [ʃ]. The fricative errors were relatively infrequent, occuring approximately 25% of the time. Errors in voicing were rare, most of the substitutions being voiceless sounds.

5.4.2. The voiced interdental: /ð/. For the voiced interdental, the two most common substitution errors were [d̪] and [θ], depending on the position or type of cluster being tested. For example, for a single consonant in initial and medial position, and in consonant clusters in medial II position, [d̪] was the most common error, whereas, for a single consonant in final position and in consonant clusters in medial I and final position, [θ] was the most common error.

Similar to their performance on the /θ/ sound, the subjects used stops (i.e., [d̪], [t̪]) and fricatives (i.e., [s], [z̪]) in their substitution of /ð/. Of all the substitutions, 80% were due to the use of a stop and 20% were due to the use of a fricative. The final position was the one that received the largest number of substitutions, both as a single consonant and as a cluster. The overwhelming majority of the sounds substituted for /ð/ in final position involved errors in voicing, most of the substitutions being voiceless sounds.

5.4.3. The velar nasal: /ŋ/. When /ŋ/ was pronounced as a single consonant, the most common error was due to the insertion of [g] in medial position (e.g., the pronunciation of "singer" as [sɪŋgə]), and the insertion of [g] and [k] in final position (e. g., the pronounciation of "young" as [yəŋg] or [yəŋk]. However, when tested in a consonant cluster, the opposite seemed to be true: most of the errors were due to the omission of the following consonant (either [g] or [k], such as the pronunciation of "finger" as [fɪŋə]. However, as noted earlier, there were far more errors in /ŋ/ as a single consonant than when it occurred in a cluster.

5.4.4. The low front vowel: /æ/. The substitution of [ɛ] for [æ] was by far the most common error encountered with the low front vowel. Two common patterns were found among the subjects: (1) the use of a specific sound such as [ɛ] for /æ/ (e..g., [ɛn] for "Ann"); and (2) the use of a sound which was pronounced between two sounds, for example, [mɛ˕] for "man".

5.4.5. The mid central vowel: /ʌ/. The most common error committed by the subjects was the substitution of [U] for /ʌ/. The subjects also occasionally used [U˧], a vowel intermediate between [U] and [ʌ].

5.5. Subject variability

Results from Table 2 above indicated that some of the variability of the scores was due to subject variability (p = .0245). That is, the overall difference in the scores was due not only to the intrinsic difficulty of the sounds tested, but also to the differences among the subjects themselves.

Table 8 shows the overall performance of the subjects on all three parts of the test. Results from this table show that subject G was the one who performed the best on the test (73% of correct answers) while subject E was the one with the weakest performance (27% of correct answers).

Table 8. Overall performance on Parts I, II, and III of the test

Subject	% Correct Answers
G	73%
D	52%
F	50%
A	49%
B	45%
H	42%
C	40%
E	27%

When looking at individual orders of difficulty (see Table 9) one observes that, with the exception of subjects B and G, all the other subjects followed the same order of difficulty that had been predicted. That is: (1) /ŋ/ > /θ/ and /ð/, and (2) /θ/ > /ð/. In addition, the results showed that /ʌ/ was consistently easier than /æ/ for all the subjects. This indicates that variability tended to occur in the absolute scores and not in the scores relative to each other.

Table 9. % of correct sounds for /θ/, /ð/, /ŋ/, /ʌ/, and /æ/ among the subjects tested

	Order of Difficulty				
Subjects	Consonants			Vowels	
A	/ŋ/ (81%)	/θ/ (59%)	/ð/ (21%)	/ʌ/ (93%)	/æ/ (20%)
•B	/ŋ/ (83%)	/ð/ (11%)	/θ/ (5%)	/ʌ/ (96%)	/æ/ (67%)
C	/ŋ/ (80%)	/θ/ (65%)	/ð/ (4%)	/ʌ/ (82%)	/æ/ (7%)
D	/ŋ/ (80%)	/θ/ (80%)	/ð/ (26%)	/ʌ/ (93%)	/æ/ (9%)
E	/ŋ/ (78%)	/θ/ (8%)	/ð/ (5%)	/ʌ/ (69%)	/æ/ (19%)
F	/ŋ/ (83%)	/θ/ (49%)	/ð/ (23%)	/ʌ/ (100%)	/æ/ (35%)
•G	/ŋ/ (100%)	/ð/ (76%)	/θ/ (70%)	/ʌ/ (88%)	/æ/ (17%)
H	/ŋ/ (75%)	/θ/ (40%)	/ð/ (24%)	/ʌ/ (100%)	/æ/ (20%)

•Subjects did not follow the order of difficulty predicted

5.6. Task variability

This part of the study investigated the subjects' performance on three different tasks, which ranged from formal, such as reading a word–list, to more informal, such as paraphrasing. The subjects were expected to make more errors on Part III of the test than Part II, and more errors on Part II than Part I, because Part I had the most formal task and Part III the least formal one. That is, the degree on formality was expected to be in negative correlation with the number of errors made.

Results from Table 2 above indicated that no significant difference was found among the three parts of the test (p= .6030). This in part contradicted findings from previous studies (Nemser (1971); Dickerson (1977) and others) where the sociolinguistic situation, that is, the degree of formality, had been found to have an effect on the subjects's performance.

5.7. Trial variability

One of the objectives of this study was to check for the subject's consistency in Trials I and II of the test. A "Wilcoxon Signed Test" (Blalock 1972) was performed, and the subjects' scores from both trials were compared (see Table 10).

Table 10. Subjects' scores on Part I, Trials I and II *

Subject	Trial I	Trial II
A	60.4%	53.1%
B	39.6%	35.4%
C	42.7%	41.7%
D	63.5%	62.5%
E	27.1%	22.9%
F	52.1%	52.1%
G	64.6%	63.5%
H	37.5%	31.3%

* These percentages are based on 96 test items.

Despite the fact that the same word–list was read twice, results showed that seven out of eight subjects performed better on the first trial (p= .0078). This might be an indication that the subjects were paying more attention when they were going through the word–list the first time and therefore fewer errors were made.

6. DISCUSSION

It had been hypothesized that the following hierarchy of difficulty would be found: (1) /ʌ/ > /θ/, /ð/, /ŋ/, and /æ/; (2) /ŋ /> /θ/ and /ð/; (3) /θ/ > /ð/. /ʌ/ was expected to be the easiest sound because it occurs in BP as an allophone of /*a*/.

According to the Language Universals predictions, the velar nasal was expected to be easier than both fricatives, /θ/ and /ð/, because nasal sounds are more natural than fricatives, and according to Jakobson (1941), they come first in the universal acquisition order; /θ/ was expected to be easier than /δ/ because voiceless sounds are more natural than voiced ones.

Results from this study confirmed most of the predictions made, indicating support for the Language Universals Hypothesis. The only prediction not confirmed concerned the relation of /ʌ/ to the other sounds. Though easier than /θ/, /δ/, and /æ/, it was not significantly different in dificulty from /ŋ/. Nevertheless it is important to note that the results did not disconfirm the predicted order. They merely did not support it.

Concerning consonant clusters, it had been hypothesized that /θ/, /δ/ and /ŋ/ would be significantly more difficult in clusters than as single consonants since consonant clusters are less natural than single consonants. Results from this study indicated that this prediction was true only for the voiced interdental, /δ/. No significant difference was found between /θ/ as a single consonant and in clusters. However, it should be noted that the accuracy was 8% higher on the single consonant than on the consonant clusters (see Table 4) although this difference was not statistically significant. On the other hand, the prediction that the /ŋ/ would be easier as a single consonant than in clusters was disconfirmed, the /ŋ/ being easier in clusters than alone. The reversal in the predicated order of difficulty for the /ŋ/ might be explained in light of the kinds of errors that occured. Most of the errors involved the epenthetic addition of [g] or [k] after [ŋ]. This may have resulted from the influence of the spelling system. Since [–ŋg–]/[–ŋk–] and [–ŋ–] are realized graphically as <ng> or <nk>, the tendency to insert [g] or [k] may have been strong.

In addition, this study predicted that initial position would be easier than final position, but the results supported this prediction only in part. Data indicated that the voiced interdental, /δ/, was indeed more difficult in final position, although no difference in position was found for the voiceless interdental, /θ/.

The fact that /θ/ was not as difficult as /δ/ in final position might be explained in light of another fact from natural phonology – voiceless sounds are more natural in final position than voiced ones, and voiced sounds are frequently devoiced in word final position. Thus, while many of the final /δ/ errors were devoicing errors, the converse was not true. There were few voicing errors for /θ/. Actually, in some sense, Contrastive Analysis would have predicted otherwise because [z], a voiced sound in BP, is an allophone of /s/ in final position under certain conditions.

Nevertheless, in spite of the role that natural phonology played, the error analysis across the eight subjects indicated that most of the errors made could have been predicted by Contrastive Analysis since they were due to the use of a sound that existed in the subjects' native language. For example, when trying to pronounce the English interdentals, /θ/ and /δ/, the subjects mainly used /t̪/ and /d̪/ as substitutes. However, the results also showed that processes other than L–1 interference also influenced the subjects' performance, for example, the replacement of final [δ] by [θ] as noted above. This, according to Ingram (1979), is a very common process in child phonology.

Findings from this study coincide with some of Johansson's (1973) findings in the sense that subjects used not only sounds which occurred in L–1 and L–2 but also sounds witch existed in neither language. An example of this can be found in the use of [ε^{r}] for [æ]. This might be an indication that the subjects were trying to modify sounds that existed in their native system in the direction of the target sound and as a result, they produced a sound intermediate between the native and the target sounds. These intermediate sounds could not be predicted by Contrastive Analysis.

Results from this study revealed that /ʌ/ was easier than /θ/, /ð/, and /æ/, with most of the errors being due to the use of either [U] or [u]. This might also be an indication that the subjects were heavily influenced by the spelling system since most of the words containing /ʌ/ are spelled with "u" such as "bus", "cup", "bun", and so forth.

For task variability, it had been predicted that the more formal the task, the fewer the errors that would be made. However, results from this study did not confirm such a prediction since no significant difference in performance was found among the three parts of the test. A possible explanation for such a result might be found in the testing situation used in this investigation. As noted earlier, interviews in the presence of an investigator and with the use of a tape recorder will generally produce a careful speech style regardless of the informality of the tasks (Wolfram and Johnson 1982). In other words, the fact that the investigator was present during the whole interview and a tape recorder was used, might have influenced the subjects' performance in the sense that they were more careful with their speech production, regardless of the task. Also, the subjects were paraphrasing something they had just read. A paraphrasing task based on something read rather than spoken may result in a more careful style.

In this study, no predictions were made for subject variability but it is important to note that this potentially important source of variability may be one of the most difficult to control for, since there are many factors that can contribute to individual differences.

Although the number of subjects is too small to draw definitive conclusions, the data suggest that certain factors may be related to performance. One might wonder if age, for example, had anything to do with performance. Subject G, who was the youngest among the subjects, was also the one who had the best performance. Or it could have been the length of time they studied English prior to coming to the U.S. Data from this study seems to indicate that this may also be an important source of variability, since the subject's profile reveals that the best performer had studied English for 13 years while the worst performer had studied English for only four months.

Intuitively one might think that the longer the subjects remain in the country where L–2 is spoken, the better their L–2 proficiency will be. However, data from this study does not indicate so. The subject who had been living in the U.S. for five years had 52% of her answers correct, as opposed to 73% of correct answers for the one who had been living in the U.S. for only three months. In sum, further research controlling for factors such as age, length of residence in the U.S., amount and type of instruction (whether it focused on grammar, listening, pronunciation, speaking or writing) received is still necessary, since no definite answer can be reached with so few subjects.

To summarize the above discussion, it has been found that the hierarchy of difficulty predicted in this study was confirmed for the most part. The only exception, concerned the relation of the mid–central vowel, /ʌ/, to the velar nasal, /ŋ/, since no significant difference was found among them. Consonant clusters were more difficult than single consonants only for /ð/ since no significant difference was found for /θ/, and /ŋ/ was easier in clusters than as a single consonant. Concerning position, it had been hypothesized that initial position would be easier than final position and results have shown that while /ð/ was indeed easier in initial position, no significant difference in this area was found for /θ/. In this study, one could find errors that could be explained by Contrastive Analysis (i.e., interference errors) as well as errors that could not be explained by Contrastive Analysis but that could be explained by natural phonology and developmental processes. In addition, results have shown that there were errors that could be explained by neither of the above theories, but instead by the influence of the spelling system. Examples would include the epenthesis errors with the velar nasal (as explained earlier in the Discussion) and the use of [U] and [u] as a substitute for /ʌ/. Concerning task variability, no significant difference was found among the three parts of the test, a fact which might be explained by the testing situation used in this study. Despite the fact that no prediction was made on subject variability, data suggest that individual characteristics might have played a role in the subject' L–2 performance.

7. LIMITATIONS, CONCLUSIONS, AND SUGGESTIONS FOR FURTHER RESEARCH

7.1. Limitations

There are some very important limitations that need to be considered here in the sense that they were felt to have influenced the results of this study. For example, the assertions made here are not to be generalized since eight subjects is too small a sample group for use in drawing conclusions. The present study is mainly a descriptive study. In addition, the following considerations need to be kept in mind:

1) All the subjects volunteered to participate in this investigation, which might have contributed to a biased sampling. Researchers have found that "volunteers may differ from nonvolunteers on important variables such as motivation, interest, and so forth, which can influence the results" (Moore 1983:127)

2) Subjects differed in aspects important to the study such as dialect spoken, time of residence in the U.S., and length of instruction prior to coming to the U.S. Only through a study with a larger sample can light be thrown on the possible effects these factors have on performance.

7.2. Conclusions

In spite of the limitations mentioned above, the results of the study confirmed many of the predictions for the group of subjects investigated. A hierarchy of difficulty among the sounds investigated was expected to be found and results from this study confirmed such expectations. Therefore, one might conclude that language universals is a better predictor of difficulty among new sounds than Contrastive Analysis is, which predicts that new sounds are all equal in difficulty.

Since predictions for word position (initial, medial, and final) and phonetic environment (clusters vs. single consonants) were only partially confirmed, further investigation involving a wider variety of obstruents in initial, medial, and final positions, as well as in clusters and as single consonants, is still necessary.

Although language universals was found to be important in predicting relative difficulty of sounds, L–1 interference nevertheless accounted for many of the subjects' errors. However, it is also important to observe that not all the errors were due do L–1 interference. Phenomena such as "devoicing", which is a common developmental processes during L–1 acquisition was also found among the data. This might be an indication that there is a certain universality in the language acquisition process. That is, some of the same natural processes that occur in L–1 acquisition, might also be used later on during L–2 acquisition.

The fact that no task variability was found in this study, contradicted findings from previous studies (Nemser (1971); W. Dickerson (1977) and others) where the kind of task had an effect on performance. Such a difference might be explained in light of the testing situation used in this study. Researchers (Wolfram and Johnson 1982) have already found that outside investigators with tape recorders do tend to affect the subjects' performance, causing them to use a more careful or formal style.

7.3. Suggestions for Further Research

Since not many studies have investigated the pronunciation problems of BP speakers, there is room for more research in this area. Further investigation involving a larger sample, selected in a different manner, and controlling for personal facts, such as length of residence in the U.S. and amount of instruction received prior to coming to the U.S., is necessary to determine whether the order of difficulty and errors found in this study would remain constant across different testing conditions and language learners.

This study has failed to show a difference in the kind of task performed, which contradicts results from previous studies. This may have been due to the presence of the investigator or to the use of a tape recorder.This is an area that needs to be further investigated.

Another suggestion for researchers interested in this area of study is the investigation of the degree to which spelling influences the pronunciation of target sounds. In this study there was an indication that such was the case with the mid–central vowel, /ʌ/.

In conclusion, in spite of the above limitations, this study has shown that both language universals and native language transfer can explain certain facts about L–2 phonology. Language universals is a better predictor of relative difficulty than Contrastive Analysis. However, Contrastive Analysis seems to be a better predictor of the types of errors that occur than Language Universals or natural phonology.

It is hoped that the present study will be followed by more research on the effects of Language Universals, L–1 transfer, misunderstanding of the L–2 spelling system, and sociolinguistic variability on the acquisition of L–2 phonology. It is apparent at this stage in L–2 research that interlanguage phonology is a complex phenomenon requiring therefore a multifaceted research approach.

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APPENDIX A

Part I, trial 1: Read the following list of words

THINK
BATHE
THRASH
ANN
HUT
TRUTHFUL
FINGER
THERE
TACK
SMOOTHLY
BIRTH
NUN
MAT
OTHER
THOUGHT
RINGER
METHOD
GUN
MAN
AUTHOR
SINGER
FURTHER
THANK
FAN

STUCK
LEATHER
BANK
SMOOTHES
NORTH
PAT
NUT
HUM
BAN
THICK
HANGER
SMOOTHNESS
PINK
THROAT
PATH
SMOOTH
PAN
LUNCH
DUCK
AT
NOTHING
THE
HANG
THANK

RHYTHMIC
FAITHLESS
YOUNG
FARTHER
BUN
CAN
ATHENS
FARTHER
THINK
STUN
BOTH
AMONG
THREAD
BRINGER
RUT
FAT
BREATHES
ANGER
BATHES
RUN
CAT
TEETH
BLANKET
CLOTHE

LATHES
THREE
HAND
DUMB
WRONG
THOUGH
FOURTH
LUCK
BACK
EARTH
LONGING
BUT
LOATHSOME
BREATHE
CLOTH
TAN
NORTHERN
TOOTHPICK
NEITHER
GUT
HAT
FAITHFUL
FARTHEST
THAT

Part I, trial 2: Read the same words in reverse order

FAN
THANK
FURTHER
SINGER

TANK
HANG
THE
NOTHING

CLOTHE
BLANKET
TEETH
CAT

THAT
FARTHEST
FAITHFUL
HAT

AUTHOR
MAN
GUN
METHOD
RINGER
THOUGHT
OTHER
MAT
NUN
BIRTH
SMOOTHLY
TACK
THERE
FINGER
TRUTHFUL
HUT
ANN
THRASH
BATHE
THINK

AT
DUCK
LUNCH
PAN
SMOOTH
PATH
THROAT
PINK
SMOOTHNESS
HANGER
THICK
BAN
HUM
NUT
PAT
NORTH
SMOOTHES
BANK
LEATHER
STUCK

RUN
BATHES
ANGER
BREATHES
FAT
RUT
BRINGER
THREAD
AMONG
BOTH
STUN
THINK
FARTHER
ATHENS
CAN
BUN
FARTHER
YOUNG
FAITHLESS
RHYTHMIC

GUT
NEITHER
TOOTHPICK
NORTHERN
TAN
CLOTH
BREATHE
LOATHSOME
BUT
LONGING
EARTH
BACK
LUCK
FOURTH
THOUGH
WRONG
DUMB
HAND
THREE
LATHES

Part II: Read the passage[1] silently and then read it aloud
Part III: Paraphrase the passage with your own words

A cop was directing traffic on North Fifth Avenue one day and everything was going along rather nicely. Suddenly people started running, screaming, and climbing up trees; cars and taxis started to honk their horns, and drive into each other and up on to the sidewalks. Pretty soon the cop saw what was causing the problem. Walking down the street was a man with an enormous alligator on a leash.[2]

The cop breathes deeply, goes near the man and points his finger at the alligator. "Take that alligator to the Central Park Zoo" he yells, "Thanks for the suggestion", says the man, and he walks off towards the zoo.

The next day, the same cop is directing traffic on the same corner on North Fifth Avenue. Everything is rather calm until suddenly people start to run and scream and climb up the trees, and cars and buses are crashing into each other. "What could it be this time," thinks the cop.

Along comes the same man, with the same alligator on a leash, walking down the street.

"Hey, Mister, I thought I told you to take that alligator to the Central Park Zoo!" But this time bursting with anger.

"I did," said the man. "And he liked it so much that today we are going to the Museum of Natural History!"

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[1] Passage from the book *What's so funny?*, by Elizabeth Claire.
[2] Leash: a rope or chain to hold a pet such as a dog or a cat.

APPENDIX B

Table 6. Substitution, epenthesis, and deletion errors commited by BP speakers when attempting to pronounce /θ/, /ð/, and /ŋ/ in all three parts of the test.

Target Sound	Position	Type of Error	Score	Total Number of Errors
θ	Initial /θ-]	[t̪-]	27	35
		[s-]	6	
		[d̪-]	1	
		[ð-]	1	
	Medial /-θ-/	[-t-]	30	41
		[-s-]	9	
		[-d-]	1	
		[-ð-]	1	
	Final /-θ/	[-t̪]	39	60
		[-s]	8	
		[-ʃ]	5	
		[-t]	2	
		[-d̪]	2	
		[-ð]	2	
		[-z]	1	
		[-Ø]	1	
	Initial cluster /θc-/	[-t̪c-]	35	37
		[sc-]	2	
	Medial cluster /-θc-/	[-t̪c-]	17	25
		[sc-]	8	
	Final cluster /-cθ/	[-ct̪]	33	58
		[-cs]	18	
		[-cØ]	3	
		[-cʃ]	2	
		[-ct]	1	
		[-cd̪]	1	
/ð/	Initial /ð-/	[d̪-]	390	395
		[t̪-]	3	
		[θ-]	2	
	Medial /-ð-/	[-d̪-]	54	54

Table 6 – continued

Target Sound	Position	Type of Error	Score	Total Number of Errors
θ	Initial /θ-]	[t-]	27	35
		[-t̪]	13	
		[-s]	7	
		[-d̪]	4	
		[-z]	2	
	Medial I cluster /-δc-/	[-θc-]	32	61
		[-t̪c-]	14	
		[-d̪c-]	7	
		[-sc-]	7	
		[-zc-]	1	
	Medial II cluster /-cð-/	[-cd̪-]	33	41
		[-cθ-]	6	
		[-ct̪-]	2	
	Final Cluster /-δc-/	[-θc]	21	63
		[-t̪c]	16	
		[-sc]	10	
		[-zc]	8	
		[-fc]	4	
		[-vc]	2	
		[-d̪c]	2	
/ŋ/	Medial /-ŋ-/	[-ŋc-]	53	53
	Final /-ŋ/	[-ŋc]	55	72
		[-n]	17	
	Medial Cluster /-ŋc-/	[-ŋØ-]	6	9
		[-Øc-]	2	
		[-nc-]	1	
	Final Cluster /-ŋc/	[-ŋØ]	2	4
		[-nc]	2	

Table 7. Substitution errors commited by BP speakers when attempting to pronounce /æ/ and /ʌ/ across all three parts of the test.

Target Sound	Type of Error	Score	Total Number of Errors
/æ/	[ɛ]	376	396
	[ɛʳ]	14	
	[ʌ]	3	
	[ɔ]	2	
	[ɛʳ]	1	
/ʌ/	[U]	10	38
	[U˔˖]	7	
	[ɛ˖]	7	
	[a˔]	3	
	[u]	3	
	[u˔˖]	2	
	[æ]	2	
	[æ˔˖]	2	
	[ɔ]	1	
	[O˖]	1	

SOCIAL RELATIONS AND SEX STEREOTYPING IN LANGUAGE

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The study of language and sex is now well established with a distinctive subject matter and a number of most valuable findings. Yet, it does not take much to see that feminist research betrays at least one serious failing: a lack of data on possible manifestations of sexism in languages other than English.

The present paper is an attempt at a comparative study of sex differentiations in the lexical systems of English and Russian. Interest here is focused on a politically significant register like stereotyping men and women.

For this purpose all the nouns marked as referring exclusively to males or females were picked out of Chamber's Twentieth Century Dictionary (1964) and S.I. Ozhegov's Dictionary of the Russian Language (1978). On the whole there were found 279 English and 125 Russian sex-marked nouns. Of these 165 English and 92 Russian nouns referred to males and 114 English and 33 Russian nouns – to females. The nouns were classified: 1) according to their positive or negative connotations (table 1) and (2) according to semantic zones, reflecting stereotypic ideas of: a) men's and women's appearance (beauty:ugliness, tidiness:untidiness, moderation:affectation); b) achievement potential (strength:weakness, intelligence:folly, efficiency:inefficiency, activity:passivity); c) Behavioural patterns (chastity:promiscuity, benevolence:malevolence, composure:fussiness); d) division of labour (business: household); e) marital status (married:unmarried) (Table 2).

One of the tasks of this contrastive investigation was to test the results obtained by feminist linguistics, that is why the semantic zones have been designed to provide common ground for the analysis of empirical data.

Table 1. Shares of positive and negative sex-specific evaluations

Emotional colouring	ENGLISH		RUSSIAN	
	Male	Female	Male	Female
Positive	7.2%	3.3%	10.4%	0.8%
Negative	51.9%	37.5%	63.2%	25.6%

Table 2. Stereotypic qualities assigned to males and females

Semantic zones	ENGLISH		RUSSIAN	
	Male	Female	Male	Female
APPEARANCE				
Beauty:Ugliness	72%:0.72%	2.16%:0.72%	0. %:0. %	0. %:5.6 %
Tidiness:Untidiness	0. %:0.36%	0. %:1.44%	0. %:0. %	0. %:0.8 %
Moderation:Affectation	0. %:2.5 %	0. %:0.36%	0. %:0.8 %	0. %:0.8 %
ACHIEVEMENT POTENTIAL				
Strength:Weakness	1.8 %:3.6 %	2.16%:0. %	2.4 %:3.2 %	0.8 %:0. %
Potency:Impotence	1.8 %:1.8%		0.8 %:0.8 %	
Intelligence:Folly	1.44%:7.2 %	0.72%:0. %	3.2 %:15.2%	0.8 %:0.8 %
Efficiency:Inefficiency	0. %:2.16%	0. %:0.36%	1.6 %:8.8 %	0.8 %:0.8 %
Activity:Passivity	0. %:3.2 %	0. %:0. %	0. %:4. %	0. %:0. %
BEHAVIOURAL PATTERNS				
Chastity:Promiscuity	0. %:8.6 %	1.44%:22.5%	1.6 %:8.8 %	0. %:9.6 %
Benevolence:Malevolence	1.44%:20,7 %	0.72%:6.46%	0. %:16.8%	0. %:4. %
Composure:Fussiness	0. %:0.72%	0. %:0.36%	0. %:0. %	0. %:0.8 %
DIVISION OF LABOUR				
Business:Household	0. %:0.72%	0. %:1.08%	0. %:0. %	0. %:0. %
MARITAL STATUS				
Married:Unmarried	0. %:0.36%	0. %:0.36%	0.8 %:0.8 %	0. %:0.8 %
MISCELLANEOUS	0. %:0. %	0. %:0. %	0. %:6.6 %	0. %:0. %

For the same reasons we have not classified the words reflecting sex stereotypes according to their stylistic differentiation despite certain advantages of such classification. Phrases like *a man of the world, a woman of pleasure* have not been included although some feminists have done so. The reason is that a lot of such phrases have not reached the status of idioms and are not to be found in the dictionaries. They tend to be speech rather than language phenomena. This means that their inclusion would make the investigation less rigorous.

ENGLISH. Feminist literature provides quite a rich choice of works on stereotyping. The most important arguments put forward by the writers on the subject can be roughly summed up as follows: 1) positive values are associated with males and negative with females (Nilsen (1972:102–109); Spender (1980:16); Strainchamps (1971:240–50)) which is materialized in the fact that female–referring insults significantly outnumber male–referring ones (Bolinger (1980:91,92); Miller and Swift (1979:131)); 2) women's experiences and roles are regarded as having less value (Coates (1985:8); Phillips (1983:135-136)). Many commentators also point out that women's values are focused on their bodies (Stanley 1977:77–84), while men's mental qualities are priced more than anything else (Bolinger 1980:91). Women are described in terms of weakness and passivity, while men are pictured as powerful and enterprising (Phillips 1983:135).

The data we obtained for the English language run somewhat contrary to the first feminist assumption cited above, since the score of male-referring negative characteristics and insults is higher than that of female-referring ones, yet it would only be just to admit that positively coloured words for males outnumber those for females as well (table 1). It seems easy to explain. Men are more visible in language since for centuries they have been more socially exposed than women and participated in a greater number and a greater variety of social situations which could not but be adequately reflected in the lexical system of the language.

The male- and female-referring words constituting the semantic zone APPEARANCE do not display any significant quantitative or stylistic differences.

The male terms designating BEAUTY like *beau*, *adonis* have female counterparts like *belle*, *beauty*, *bellibona*, *peach* (some of which can be also used ironically), the negative part of the opposition, UGLINESS, being represented by only a few words both for men and women: *satyr*, *Quasimodo – hag*, *Gorgon*.

The predominantly male noun *sloven* is opposed to female ones like *dowd(y)*, *frump*, *sow*, *Judy* in the group UNTIDINESS (the rest of the terms like *slut*, *slattern*, *drab*, *draggletail*, *trollop*, *bitch*, etc. which are sometimes cited as female words for untidy person were included into the semantic sphere PROMISCUITY, since the notion of untidiness in them is combined with connotations of loose behaviour, moral corruption which make them much stronger insults).

Masculine terms describing AFFECTATION like *dandy*, *dude*, *fop*, *rake*, *smart*, *corinthian*, *puss* used to criticize men taking too much care of their looks prompt that being too showy in appearance is not compatible with the stereotype of manhood. This group is semantically close to a female term *doll* included under AFFECTATION since both also imply the notion of being shallow and silly.

The data on ACHIEVEMENT POTENTIAL supply a bit more contrastive material.

The left-hand member of the semantic opposition STRENGTH: WEAKNESS comprises positive words for men: *cob*, *cock*, *bulldog*, *yeoman*, suggesting vigour and courage, and negatively coloured words for women: *amazon*, *mauther/mawther*, *rounceval*, *virago*, implying unusually great physical strength and size with the exception of *romp* and *tomboy* which can be viewed as relatively favourable stressing high spirit, vigour and boldness equally with boisterousness. The right-hand member of the semantic opposition in question is asymmetric because quite a numerous group of words designating a physically and morally weak man (cf.: *effeminate*, *Jenny*, *Nancy*, *milksop*, *sop*, *sump*, *cissy*, *dastard* also implying cowardice) has no feminine equivalents. Interestingly enough, some of male insults suggesting WEAKNESS are female-associated. The data show that women are stereotypically viewed as physically and emotionally weak creatures but at the same time, unlike men, they are stigmatized not for being weak but for being too strong.

The opposition STRENGTH:WEAKNESS can be supplemented by the minor opposition sexual POTENCY:IMPOTENCY represented by only male-referring words, cf. *bull*, *stud*, *rooster*, *stag*, *stallion* for potency, and *capon*, *gelder*, *ox*, *sprado*, *steer* for impotence.

The data obtained on INTELLIGENCE:FOLLY confirm the observation that though learning and scholarship would seem to be asexual the majority of terms naming a person of great knowledge and wisdom are exclusively masculine (cf.: *sage*, *pundit*, *wizard*, *savant*) and the few words referring to women have to do with pretensions to knowledge (cf.: bluestocking, bas–blue) (Bolinger 1980:91); but on the other hand, it bears a numerous group of male terms implying FOLLY having no female equivalents, cf.: *beetlehead*, *booby*, *bull–calf*, *dolt*, *humdrum*, *jay*, *jerk*, *oaf*, *put(t)*, *saphead*, *scapegrace*, *tomfool*, *tomcat*, *cold*, *cold–poll*, *cold–hopper*, *tom–noody*, *green–horn*, *foozle*, the fact that escapes feminist's attention and stands somewhat contrary to the allegation that English abounds in terms questioning women's intelligence (Miller and Swift 1979:131).

Tte EFFICIENCY box is empty in Table 2. The score of male–referring insults representing INEFFICIENCY is slightly higher than that of female–referring ones. Some male terms suggest the idea of having no importance: *jackstraw*, uselessness in connection with old age: *fogy*, *duffer*, *geezer* or inexperience and young age: *colt*. The female–referring insult *nullipara* stresses inability to give birth to a child.

The semantic opposition ACTIVITY:PASSIVITY is represented only by male words denoting an awkward, passive, sometimes lazy person: *bumpkin*, *lubber*, *slug*, *sluggard*, *drone*, *swab*.

The semantic zone BEHAVIOURAL PATTERNS comprises the bulk of the nouns under study and reveals some lexical gaps.

The data on CHASTITY:PROMISCUITY fully confirm the assertions of many commentators that the English lexicon is asymmetric in this sphere supplying a big stock of words treating women in derogatory sexual terms which significantly differ from the available male words not only in number but also in the force of insult. Male words for PROMISCUITY are much milder than female ones, cf. *womanizer*, *Don Juan*, *amorist*, *Casanova*, *billy–goat* on the one hand and *hussy*, *jay*. *hoyden*, *slattern*, *mutton*, *harlot*, *trull*, *whore* on the other. In some male insults the blame is shifted on to women, like in *pimp*, *souteneur* which come from their association with female prostitutes. The word *cuckold* stigmatises a man who is in fact a victim of his wife's promiscuity. Quite meaningful is the fact that female words for CHASTITY like *chaperon*, *matron*, *prude* are deprived of positive connotations implying old age, priggishness. The only word representing CHASTITY which can be viewed as free of negative connotations is *maiden*.

Another asymmetry, though only quantitative, is manifested in the semantic opposition BENEVOLENCE:MALEVOLENCE where male insults significantly outnumber female ones. Both groups are semantically close implying spitefulness, vulgarity, meanness, violence, etc., cf. *barbarian*, *blackguard*, *churly*, *cad*, *grobian*, *knave*, *plug*, *caitiff*, *plugugly*, *loon*, *rascal*, *ruffian*, *rogue - rascal*, *brute – flip*, *shrew*, *hell–cat*, *termagant*, *scold*. Some of the female words here also suggest old age, sexual uselessness, cf.: *crone*, *witch*, *beldam(e)*, *harridan*. The left–hand member of the semantic opposition BENEVOLENCE:MALEVOLENCE comprises male terms like *prud'homme*, *bawcock*, *brick*, *trump* and female ones like *bellona*, *Griselda*.

The semantic opposition COMPOSURE:FUSSINESS is not represented by any clearly sex–specific words except, perhaps, the word *hen* characterising a fussy female.

The opposition reflecting DIVISION OF LABOUR between the two sexes, viz. BUSINESS:HOUSEHOLD, has an empty left–hand member, while the right–hand one is represented by some female nouns like *apron*, *petticoat*, *placket implying women's activities as a housewife and some male ones like betty*, *hen–hussy* stigmatising men for troubling themselves with women's work in the household.

MARRIAGE is a positive marker of social status, therefore normally there are no derogatory words describing a married male or female. On the other hand, being unmarried seems to be a stigma only for a female. The word *bachelor* has no negative connotations whereas *spinster* implies sexlessness and/or frustration and insecurity. That is why an unmarried sexually independent young woman has to be called a *bachelor girl* (Cameron 1985:77).

The data obtained for the discussed semantic zones show that feminist approach to sex stereotyping is somewhat biased. True to say, both men and women are stereotyped but as it seems male and female stereotypes as reflected in the language are opposed not in terms of positive/negative or greater/lesser values associated with the sexes but in terms of sex differences having a physiological basis and reflecting some of the basic dichotomies of social life, the most important of them being the dichotomy between business and intimate patterns of life: men are stigmatised for lack of business qualities like intelligence, physical and moral strength, efficiency, etc. in accordance with their role of PROCURER and women are stigmatised for impure sexual behaviour in accordance with their role of MOTHER.

RUSSIAN. The distribution of Russian male and female words in the semantic zone APPEARANCE follows a little bit different pattern than that of the English ones. Unlike in English there can be found neither male nor female nouns designating a beautiful person and the nouns coming under UGLINESS and UNTIDINESS are exclusively female, cf.: *vydra* (thin, ugly), *kikimora* (ugly), *durnushka* (unattractive, plain, possibly young), *khudyshka* (thin, unattractive), *pigalitsa* (small, unattractive) and *zamarashka* (unattractive, untidy).

The right–hand member of the semantic opposition MODERATION:AFFECTATION is represented by a single male term *dendi* (dandy) and a single female one *kukla* (doll).

The Russian data on ACHIEVEMENT POTENTIAL are very much like the English except that in Russian this category is represented more scarcely. Positively coloured male words in STRENGTH like *bogatyr* (very strong, valiant), *zdorovyak* (strong, healthy) are opposed to a derogatory female term *kobyla* (unattractive, physically very strong). Parallel to English, male insults describing WEAKNESS have no female equivalents, cf.: *hilyak* (weak, sloppy), *dochliak* (weak, skinny), *hliupik* (milksop), *nytik* (sniveller). And like in English a weak male can be compared to a female: *baba* (weak–spirited milksop).

Similar to English the opposition POTENCY:IMPOTENCE is represented by male–referring nouns but their number is smaller: *zherebets* is the Russian equivalent for *stallion* while *impotent* is a self–explanatory borrowing.

The left–hand member of the semantic opposition INTELLIGENCE:FOLLY is represented by positively coloured words for men like *ostroumets* (witty, intelligent), *ostroslov* (witty, with a sharp tongue), *moudrets* (sage), *znatok* (knowledgeable) and by a pejorative female term *sinii chulok* (blue stocking). Male insults of this semantic group are plenty and fully disparaging, cf.: *pen'*, *balbes*, *bolvan*, *duren'*, *duralei*, *baran* etc, which imply being stupid, unknowingly dull, whereas the only female noun *duriokha* (silly, incompetent) has the suffix /jɔːx/ softening the negative meaning and suggesting a what–can–one–expect–of–women tolerance.

EFFICIENCY is described by both male: *mastak*, *umelets* (skilled, clever at crafts) and female: rukodel'nitsa (clever at knitting, sewing, etc.) nouns. Like in English male insults constituting INEFFICIENCY outnumber female ones. They also differ in their connotations since the female nouns contain diminutive suffixes like /iʃk/ in *poustishka* (shallow, good for nothing) making them much milder than corresponding nouns of masculine gender, cf.: *vertoprakh*, *lobotrias*, *okhlamon*, *shalopai*, etc. denoting idle, good for nothing people.

Like in English the negative member of the semantic opposition ACTIVITY:PASSIVITY is represented only by male terms: *borov*, *pientiukh*, *tiufiak*, *uvalen'*, *biriuk*, etc. denoting lazy, passive, awkward persons.

The Russian lexical material on BEHAVIOURAL PATTERNS does not reveal any striking gaps in the semantic sphere of PROMISCUITY. But it holds true for Russian as well that, firstly, some male words in PROMISCUITY are mild epithets in comparison with most female ones, cf.: *lovelas*, *babnik*, *volokita*, *don–zhuan* characterizing men as seducers of weak females and *devka*, *potaskuha*, *prostitutka* stigmatising women for loose behaviour; and, secondly, some derogatory male nouns insult men at the expense of women, cf. *sutenyer* (souteneur) or *rogonosets* (cuckold). Unlike in English CHASTITY is represented by the male word *eesousik* which is fully negative and blames men for taking no interest in women and being too pious.

Like in English the right–hand negative member of the semantic opposition BENEVOLENCE:MALEVOLENCE is also asymmetric in Russian. Male nouns like *vyrodok*, *upyr*, *podonok*, *zhulik*, *hliust* describing anti–social elements outnumber female ones like *gadiuka*, *halda*, *furia* emphasizing the venomous nature of certain females.

The semantic sphere FUSSINESS comprises the only female noun *nasedka* (hen).

The opposition BUSINESS:HOUSEHOLD is practically non–existent in Russian if only Ozhegov's Dictionary is taken into consideration (the dictionary does not, for instance, give the word *striapukha* which in phrases *khoroshaia striapukha*, *plokhaia striapukha* characterizes a woman as a good or bad cook). Rather significant is the fact that there are no words in Russian stigmatising a man for doing household jobs.

The words grouping around MARRIAGE behave in Russian in much the same way, but the word bobyl' (single, about a man) testifies that for a man to be single can be viewed negatively in Russian, although there is the word *kholostiak*, an exact equivalent of *bachelor*. Another difference is that in Russian *kholostiak* has a feminine gender form *kholostiaschka* (it will be remembered that an independent young female is described in English with the help of the phrase *bachelor girl*).

Earlier we said that being married is normally positive but in certain situations, e.g. from the point of view of a girl looking for a husband, being married is a negative feature. This "possibility" is realised in the Russian word *zhenatik*.

Some male insults which do not come under any of the semantic zones were gathered in MISCELLANEOUS. They are *zhmot, krohobor, skared* (tight-fisted misers), *degtemaz* (slanderer), *stukach* (informer).

The data discussed suggest that despite minor quantitative differences Western and Russian cultural beliefs of male and female inalienable qualities are reflected in the two languages in basically the same way as well as the dichotomy between the world at large and the family.

Studying the data on sexism in the two languages serving as means of communication for the nations of the two different socio-economic systems with constitutionally different status of women brings about some controversial problems: 1) the correlation between the language sexism and a concrete social reality; 2) language reform and women's liberation.

Discussing these problems we can not escape mentioning "symptomatic" and "casual" approaches to sexist language (Cameron 1985:74,75). The "symptomatic" camp represented first of all by C. Miller and K. Swift who believe that language is a symptom, an effect of women's oppression which can be overcome by a language reform, is strongly criticized by the followers of the "casual" tendency represented by D. Spender who supports the idea that language is a cause of women's oppression rather than a symptom of it and all the words are sexist because their meaning is fixed by men. Both approaches were convincingly refuted by D. Cameron (1985) who having made a number of most valuable remarks on the state of art fails in the end to explain the origins of the forms of oppression she wishes to see abolished.

Holiday (1987:86) suggests that the answer could be found in the theory of historical materialism. Developing K. Marx's thesis about the necessity of distinguishing between the "apparently purposive constructive ability of animals and the genuinely purposive labour of humans" he asserts that it is difficult to see how even the simplest process could be initiated unless those engaged in it have the capacity of speech and comes to the conclusion that "language should be treated as a kind of labour power" (Holiday 1987:89). A. Holiday goes on to say that under conditions of capitalist relations of production men may exercise dominance over large and important regions of language such as the discourse of science the same as it happens with class control over labour power in general (Holiday 1987:89). On the other hand, language as a system of communication can not be controlled by one or other sex or class. In other words, language can be an instrument of manipulation but not the object of manipulation.

Treating the subject of verbal violence against women Cameron (1985:76) remarks that to say that the asymmetry of insult terms reflects reality would be banal and she is certainly right if "reality" stands for the present state of affairs in a society. The lexical system of both English and Russian like any other languages of the world are bound to reflect the historically structured differentiation of male and female roles caused first by the natural ability of women to nurture life in their bodies and then deepened with its growing significance for the inheritance and property and the provision of manpower. Any language must have been more or less sexist so that we can trace the history of patriarchy through the history of its words. But that does not mean that there is a correlation between sexism present in a language and the position of women in society. The bulk of language units which diachronically had a political value with coming social changes tend to become mere communicative technique synchronically (Abaev 1986:33) though it can be assumed that where the socio–economic causes of women's oppression are still at work certain language units will preserve their political value.

Feminists came to the study of sexism in language on the wave of the political women's liberation movement. There is no problem of women's liberation (in its western sense of breaking through the boundaries of family life) in the Soviet Union where women are employed in every possible sphere of economy, science and culture. Soviet women are rather faced with the opposite problem of "coming back into the families" since the shortage of time of working women has bad effects on their husbands and children. Probably, this explains why the Soviet women, who constitute a social power to be reckoned with, are not bothered by the sexist relics in Russian, Ukrainian, Byelorussian, etc. (and this partially accounts for the lack of linguistic interest in language sexism in the Soviet Union).

It seems that sexism is not so much a question of language as a question of language use, that is of the speaker's attitude. Sex stereotypes as reflected in the language are not sexist in themselves: they can acquire sexist colouring in speech. The problem of intent is well understood by Cameron (1985:78) who regards the incompatibility of the speakers' intents as the main obstacle to reclaiming the meanings of sexist words. In this connection of interest will also be B. Risch's findings that women use such words as *bitch*, *whore*, *slut*, usually thought of as feminine and described in dictionaries as referring to females, to insult men. The speaker's intention can be guided by different factors: psychological, socio–cultural and possibly socio–economic ones like profit, marketing and so on as it is seen in sex–biased job advertisements. If we look at the problem of sexism in this aspect the emphasis shifts from changing the "sexist language" by way of reforms to changing the attitudes, beliefs and prejudices, that is the people's consciousness which means changing the sources of the sexist society.

Of course, it would be wrong to belittle the feminist's work on women's liberation through pressure on government agencies and the media, popularization of research results, organized demands for guidelines and regulations encouraging non–sexist language use because language can be used as a powerful means of social control and all these attempts should be viewed as a step further towards a non–sexist ideology. Yet, practice shows that a real change of relations between women, men and language can be achieved only when it is based on changes in the socio–economic sphere of the life of a certain society.

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A CONTRASTIVE STUDY OF MALE AND FEMALE OCCUPATIONAL TERMS IN ENGLISH AND RUSSIAN

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Exposing sexism in the language system feminists focus on occupational terms as a politically most significant lexical field. When it comes to demonstration of actual manifestations of sexism in this sphere forms with the suffix *–man* together with formal marking involving either the derivational suffixes *–ess/–ette* or the prefixal units *woman/lady/female* are sure to be mentioned.

Forms involving the suffix *–man* serve good examples of sexist lexics in view of the experimental data reporting that most informants tend to interpret generically used *man* as referring only to males (Schneider and Hacker 1973) even if some linguistic authorities still insist that *man* is a universal term clearly understood to mean 'person'. It cannot be said that any of the feminist alternatives (–person, –woman) solves the problem. Even among linguists working on language sexism there is much variation in the interpretation of *–person*. Some authors claim that it is frequently regarded as equivalent to feminine (Coates 1985:9) while others argue that it frequently exhibits preferential male interpretation (Herbert and Nykiel–Herbert (1986:53). The suffix *–woman* is said to attain a "peculiar odour ...even in the humblest of context" (Cameron 1985:89).

To have a closer view of the problem we have undertaken a brief survey of the British press and have checked out the instances of *–man*, *–person*, *–woman*. On about 1200 pages of the "Guardian" and the "Obserwer" taken at random the share of terms involving the suffix *–woman* against those with *–man* referring to females is 1 to 2. In some of the examples the suffix *–woman* can be thought as used ironically:

> Ms Richardson is the party's spokeswoman on women. Her job is to be in permanent state of dissatisfaction about the condition of women.
>
> (Guardian, 7 Oct., 1988)

The approximately equal sample from the "Morning Star" yielded no *-man* terms referring to females, the suffix *-woman* was employed instead. All of the examples can be considered stylistically neutral. A few occupational nouns with *-person* which were registered referred to both males and females:

> Labour Party spokesperson on Northern Ireland, Peter Archer, said...
> (Morning Star, 7 March, 1987)

> A Core spokesperson [Jean Emery] said ...
> (Morning Star, 9 Dec.,1988)

There has also been found an instance of *chair* referring to a female:

> June Ward, chair of the ILEA finance sub-committee, said yesterday...
> (Morning Star, 28 Jan.,1988)

which is an interesting fact to notice since this abbreviation never occurred in more than a hundred cases when male chairpersons were mentioned.

It is obvious that the choice of the suffix and the stylistic colouring attached to it largely depends on the speaker's (writer's) attitudes which of course undermines the feminists' idea of "sex-neutral" language units which the most insightful of them do not fail to understand, saying that "in the mouths of sexists language can always be sexist" (Cameron 1985:90). But what seems to be a still more bitter pill for feminists is that the majority of English speakers do not see occupational terms with *-man* as sexist. A good proof of it is a great deal of confusion among feminists themselves who often fall into the trap of using the *-man* suffix forgetting about its "perverse sexist nature". A number of such examples is supplied by Bosmajian (1974:94), only it gives the author more comfort to treat them as another manifestation of "the pervasiveness of linguistic male predominance". Thus she recollects hearing a woman discussing child-adoption regulations, who remarked "the women at the adoption agency acted as middle-men" and also quotes the feminist magazine "Aphra" that gave its readers the following information about one of its contributors: "Bernice Abbott is to have a one-man show at the Museum of Art this winter".

On the other hand in their striving for achieving self-identity feminists are sometimes ready to go to the extremes as is the case with Ellen Cooperman's petition to change her name to Cooperperson on the grounds that "Cooperman reflects the pervasiveness of linguistic predominance" (Cooperperson 1976:26) which is unsound because a proper name does not have any definite referent at all.

Of course, viewed diachronically, forms like those containing the *-man* suffix mirror the historically structured patriarchal order and are therefore sexist. But feminists tend to exaggerate their impact at the synchronic level since to an average speaker they are merely means of communicative technique not in the least suggestive of any political value. The feminists' efforts to impart a new life to them and expose their properties of propaganda techniques are often spent in vain. The best results they achieve are often nothing but a gesture of politeness from speakers/writers who state that using the suffix *-man* they do not intend to insult anybody and go on using it since it is a practice they are used to.

The problem of gender-marking with the help of woman/lady/female involves not less argument and controversy. The greater part of feminists view these markers as a highly politically-charged means of teaching women "their place, along with other lesser breeds" (Bolinger 1973:54) by marking their "anomalous position" in the semantic space "already occupied by the male sex" (Stanley 1977:67). Herbert and Nykiel-Herbert report that this view is not shared by some feminists who rather approve of such markers stating that all the unmarked terms only contribute to the invisibility of women in society (1986:55).

Many commentators point out the fact that the corresponding male specific marker occurs with only a limited inventory of professional terms, cf.: male nurse, male secretary, male prostitute, male whore, etc. It is quite obvious that the choice of professional names to be used with female and male-specific markers strikingly differs in terms of most devalued: most prestigious, which is very telling and feminists don't fail to make good use of it drawing attention to another evidence of English being male-oriented.

Yet, it does not seem reasonable to attach the sexist label to the locutions of the *female doctor* type so boldly. It is only fair to admit that to a great extent this use is governed by communicative laws. According to our data, 8 out of 10 professional terms refer to females without any markers, cf.: Agatha Cristie as a television writer; the home of a magnificent decorative sculptor Anna Thornhill; no woman has yet become a judge of the Court of Appeal; with Ms Jo Richardson, MP for Barking, as deputy; her coach, Mrs Judith Russo, etc. In those cases where the markers do occur they more often than not turn out to be the only means to signalize the sex of the person in question:

> Police said it was possible that a woman teacher died in the fire.
> (Guardian, 7 Febr., 1973)

Another possible source of female-specific markers' use is the communicative necessity to draw attention to the female sex of the professional in question as something unusual:

> Dr. Dizy Lee Ray, a 58-year old professor of zoology, was appointed by President Nixon today as the first woman head of the US Atomic Energy Commission, Reuter reports.
> (Guardian, 7 Febr. 1973)

Discussing the problem of putting the words *woman/lady/female* before the names of prestigiuos occupations Bosmajian (1974:98) claims that it leads to the acceptance of the idea that unless the identifying female term is present the professional is a man and, secondly, that the sexual is emphasized over the professional. There might be an objection that not at all rare are cases where male-specific markers are used side by side with female-specific ones to identify the sexes, respectively, but it prompts neither of the two ideas:

> ...another summoned a woman barrister to his room and ordered her to change her hairstyle... A male barrister said ...
> (Observer, 29 Jan., 1984)

Yet, it should be admitted that prefixing prestige occupations terms with female–specific markers occurs far more often. The reason for it is that speakers tend to stereotypically think of doctors, lawyers, judges as men not women (Martyna 1978:31) so the female–specific marker is used to refer to a female professional. But this practice does not spring from the sexist nature of English as most feminists tend to think, and is caused by the necessity to avoid miscommunication. As to the suggestion of sex emphasis attached to the units of *female doctor* type it is far too subjective. Some speakers might feel such emphasis others do not.

There is more ground for derivatives with *–ess*, *–ette* to be labelled sexist since they can carry trivialising, demeaning connotations offending women. Vivid enough is the example from a "Guardian" article about an anti–racist South–African woman writer who was called "writer" or "novelist" by the contributor of the article and "authoress" in the quotations from her reactionary opponents:

> They conclude their introduction: "the authoress exploits the black/white dichotomy in South Africa for political ends. The negative is stressed; the positive is ignored."
>
> (Observer, 23 March, 1980)

Oddly enough, there are examples of the negatively charged derivatives used by feminists themselves against their opponents. Thus a feminist author arguing with a woman poet urging women to give up their career ambitions for the sake of motherhood ironically calls her "poetess":

> "...as a germ quickened by spring, the infant opens the folding doors of the little heart, and puts forward the thought, the preference, the affection..." wrote poetess Lydia Sigourney.
>
> (Guardian, 25 Jan. 1983)

It should be noticed though that cases of stylistically neutral derivatives occur more often. Some feminist authors ignore the difference between the negatively charged *authoress*, *poetess*, etc. and the relics of the old English grammatical gender system like *actress* or *waitress*, which are stylistically neutral, and attack them all.

RUSSIAN

Some writers on the subject of feminism, particularly those advocating the elimination of all sex marking in language, point to current Russian as "a language that has eliminated/reduced sexism in the professional vocabulary" (Herbert and Nykiel–Herbert (1986:81)). As a proof works by Panov (1968) are usually first to be cited (see also Mučnik 1963) since it is explicitly stated there that in Russian (the data go back almost 25 years) the tendency to use "unmarked terms" for sex reference triumphed over the tendency to use separate male and female terms and even traditional female reference titles were replaced by sex–neutral ones. It is also stated that this process is nearly accomplished in the plural (Panov 1968:213).

Some of these claims seem rather questionable in view of the data received in our pilot study of current Russian use. Over 5000 occurrences of professional terms referring to women were registered in current Soviet press. In the singular 60.1% were found in the masculine. Of them 50.8% have no feminine alternatives of the same stylistic register, 9.3% admit feminine derivatives. 39.9% occurred in the feminine. Of them 37.7% have both forms, 2.2% do not admit masculine forms.

50.8% account for the occurrences of terms of mostly foreign origin naming prestigious occupations like *advocat* (lawyer), *arxitector* (architect), *psixiatr* (psychiatrist), *agronom* (agronomist), *regisser* (producer), etc. Feminine forms for such terms could not be found all through the history of Russian beginning with the late 19th century period when women began to enter professional life which brought the need to refer to female professionals. The fact is well reflected in the Dal' dictionary, one of the most reliable sources. As to the appearance of lots of odd derivatives like *aviatorka* (female pilot), *pedagogička* (female teacher) etc. marked with female–specific suffix in the first years after the October Revolution of 1917, this process can hardly be regarded as a tendency since it was more like one of the temporary effects of revolutionary zeal which no sphere of culture and science escaped. This linguistic process was rather limited in duration: the innovations were not accepted as norm and dropped out of educated speech within a few decades though some of them still function in colloquial highly informal Russian, cf.: *vračixa* (female doctor), *administratorša* (female reception clerk), *diktorša* (female announcer), *directorša* (headmistress), etc.

At the same time in early post revolutionary years there was observed a considerable influx of new feminine derivatives formed according to already existing productive word–building models with feminine suffixes like *–ka*: *traktoristka* (female tractor driver), *kosmonavtka* (female cosmonaut), *legkoatletka* (female athlete); *–tsa*: *letčitsa* (female pilot), *kranovščitsa (female crane operator), montažnitsa* (female fitter), *izdatelnitsa* (female publisher), etc. They have made their way into current Russian and are widely spread. In our data only 9.3% of the terms having both masculine and feminine forms were found in the masculine form. Most frequently occurring pairs are: *učitel–učitelnitsa* (teacher), *pisatel–pisatelnitsa* (writer), vospitatel–vospitatelnitsa (educator), *delegat–delegatka* (delegate), *korrespondent–korrespondentka* (correspondent). Both forms are practically interchangeable in most syntactic contexts. The female–specific suffixes generally do not bring about any negative stylistic colouring. Yet, for some speakers, especially intellectuals, the masculine form appears more formal and may be more prestigious, particularly of occupational terms related to art, literature, etc. Thus forms like *poetessa* (female poet), *pisattelnitsa* (female writer), *xudožnitsa* (female painter) are said to imply trivialising, demeaning connotations underestimating women's contribution. At the same time these female–specific terms are widely used in press in contexts excluding any possibility of ironical or downgrading interpretation.

The group of terms never occurring in the masculine unites the names of less prestigious occupations: *niania* (baby sitter), *sidelka* (nurse), *mašinistka* (typist), etc. It is significant that their frequency of occurrence comes to only 2.2% of the total number of cases while terms occurring only in the masculine account for 50.8% of cases. These quantitative and qualitative differences are very telling with regard to the problem of language sexism.

In the plural only 9.1% of professional terms referring to females were marked masculine. Of them 6.3% do not admit feminine forms at all. 91.9% were found in the feminine. Of them 81.8% occur only in the feminine. This is absolutely contrary to Panov's claim that the process of replacing sex-specific terms with sex-neutral is nearly over in the plural.

The existence of professional terms admitting no feminine derivatives brings about the problem of verbal agreement and adjectival concord. Panov (1968:202) and Mučnik (1963:78–82) noticed a strong tendency in Russian towards sex-determined concord though they had to admit that with adjectives the tendency was somewhat weaker. At the same time, the fact that sex-determined concord was most frequent among younger speakers permitted them to conclude that the tendency was going to increase over time.

According to our data the tendency towards sex-determined concord is rather prominent with verbs and here the cases of grammatical concord can be regarded as an exceptional and occasional phenomenon: the ratio of grammatical concord against sex-determined concord here is 1 to 35. Quite the reverse situation is to be observed with adjectives where instances of sex-determined concord can be viewed only as exceptions.

One can turn to Greenberg's universals (1963:74) for explanations of the fact but communication explanation seems not less relevant. The cases of sex-determined adjectival concord may occur where the adjectives are the only means of identifying the sex of the professional, which are very rare. The job is well done by proper nouns, verbs, participles and the context itself, so there seem to be no prospects for any radical shifts towards sex-determined concord here in the future.

The data received do not give the least ground to talk of any triumph of "sex-neutral" use in current Russian. First, since there is no systematic sex-determined adjectival concord with the terms admitting no feminine derivatives they cannot be treated as words of neutral gender (Aksenov 1984:21). Secondly, the use of the single occupational term for both sexes does not in any way affect the field or professional lexics where female derivatives are easily formed, the use of a masculine term in such cases is only occasional and sometimes stylistically governed. If there is a need to talk about tendencies it seems more relevant to concentrate on the change of stereotypes caused by social changes since terms previously interpreted as referring only to males now expand to accomodate females.

A few words should be also said about Russian locutions like *zenščina-vrač* (female doctor). The word *zenščina* here performs functions similar to those of derivational suffixes and it usually goes with words admitting only the masculine form to identify the sex of the referent. Another possible reason for their use is making emphasis on the female sex of the speaker. It should be however admitted that sometimes though fairly rare this marker occurs with feminine gender words.

CONCLUSION

Due to the inflectional nature of Russian there is more ground to think that the Russian forms are more marked for masculine gender than the English ones. On the other hand, Russian has more resources for marking professional terms for feminine gender and there actually exists a system of parallel terms for most of the trades and professions. The most significant exception is the names of prestigious professions but here the obstacle to the formation of adequate feminine equivalents is probably their foreign origin. Yet these difficulties can be overcome in Russian by means of feminine inflection of the verb and occasionally of the adjective though purists still frown upon this latter use. Therefore, there does not seem to be any urgent communication need for the creation of female-specific terms here because the number of cases where for the purposes of communication the term should be marked for feminine gender to avoid miscommunication is relatively small.

Judging by the data quoted above, by feminists' standards, Russian should rather be listed as a sexist language than as an example of the elimination of sexism. Feminists' compliments to Russian probably come from their simplistic view of the relations between language and social phenomena. Language is rather sluggish compared with social development and even revolutionary events cannot revolutionize a language overnight. Moreover, the language system does not always provide opportunities for this or that innovation or change. On the other hand, social attitudinal stereotypes are rather persistent and do not easily lend themselves to change. Russian, like English or any other language of the world, is sexist from its inception since it reflects patriarchal social order which reigned for centuries. But an average user does not probably feel it at all. So it seems that sexism exists only for a group of militant feminists and, on the other hand, for their opponents.

It is obvious that the attempts of the feminists at reforming a specific language will remain a sort of intellectual exercise until and unless there is enough social - urgency and awareness to alert lay language users.

Besides, it should be stressed again that some of the feminist attempts at language reforms go contrary to the laws of language development. Up to now normalization of language has (to a lesser or greater degree) been based on actual usage. The feminists would wish to impose new norms exclusively from above through an elite group of language-conscious and socially conscious people under conditions where there is no reciprocal effort from below, so their prospects are rather doubtful.

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THE ENGLISH PALATALIZATION RULE IN SECOND LANGUAGE ACQUISITION

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The problem which this article addresses is of a longstanding tradition in the field of L2 acquisition. It was brought to the researchers' attention by a series of articles (cf. Adjemian 1976, Bebee 1974, Dickerson 1977, Bebee 1980, Tarone 1979, Richards 1978) that there is a great deal of variation and style–shifting in interlanguage phonology, which was only to be expected once interlanguage (IL) had been claimed to be a natural language, i.e., variable (Adjemian 1976). Many papers stressing the importance of investigating this neglected area of IL variation in the field of second language acquisition appeared following the influential work of Labov (1968).

This article presents the results of a study of two L1 German children learning English as a L2 in a naturalistic setting during a six–month stay in Trinity Center, California, in 1975. The structural area of the study comprises phonological acquisition and the focus in on Palatalization Rule of English (PR) as a fluency phenomenon and its relation to speech tempi recognition by L2 learners. On the basis of the presented data it is suggested that what looks like a simple increase in the fluency measure of L2 learners can be attributed to an opperation of two developmentally conditioned factors (here called "grammatical conditioning" – (g.c.) and "phonetic conditioning" 0 (p.c.)) in learners' IL which work with different force over the examined period.[1]

THE SOURCE OF THE DATA AND DATA CHARACTERISTIC

The data for this paper was provided by the rich archives of The Kiel Project on Language Acquisition to which the author had access during his one – year stay in the Englisches Seminar, Kiel University in the academic year 1987/88.[2] The part of the data on which the paper is based were collected in a longitudinal fashion in a naturalistic setting during a six–month stay of four L1 German children aged 4–9 in Trinity Center, California in 1975 (for more details on data collection procedures, types of data, characteristic of the setting and for other information see Wode 1981).

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[1] Since the author's attention is focused on the pattern of acquisition of a rule over a specific period resultant variability in learner's performance is seen as a function of (the nature of) the acquisitional processratherthanbeingage–dependentor specific to an individual. By the same token, no interpretation of the data in the light of any of the phonological theories is offered.

Two L2 learners are considered – H. and L. (aged 8.11 and 6 respectively). The data is taken from two periods: Time I (T:1) 26.05 – 22.06, and Time III (T:III) 09.09. – 21.09, i.e., from the periods around the beginning and the end of the stay. The relevant material recorded on the tapes accompanied by handwritten spontaneous notes and transcribed phonetically with particular reference to the context of PR applivcation constituted the core of the data. Transcription, carried out by one person only (the present author) was repeated several times independent of the previous trials to ensure the maximum of detail and accuracy. Additional information about tempo charactericstics of every single transcribed phonetic string was provided as well. Since tempo–jugdements of H.'s and L.'s speech are limited to the author's own estimation, there is a danger that they may be heavily influenced by an impressionistic factor. An effort hovever, was made to eliminate this subjective value, or at least reduce it to a minimum, by trying to relate tempo of each relevant utterance to a relative tempo of a particular speech situation in which the learners' samples were recorded. Other variation–causing factors like, for example, emotional involvement of a speaker or his weariness were also used in describing a speech tempo of a given utterance. This gave in effect a three–way distinction of possible tempi into lento, allegro, and presto arrived at independent of previously established judgements separately for any speech situation.[3] In general, sociolinguistic characteristics of the speech situations in which the learners' speech was recorded can be specified as predominantly non–formal and casual (for a detailed description see Wode 1981).

THE RULE

Palatalization Rule in English (PR) is generally described as a rule which palatalizes alveolar segments /t,d,s,z/ to palato–alveolars /tʃ, dʒ, ʃ, ʒ/ when the former are followed by a palatal semivowel /j/. The rule can be observed to palatalize alveolars inside words as in:

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[2] Special gratitude is due to Prof. Henning Wode, whose kind permission to use whatever data of The Kiel Project the author fancied made, among other things, this paper possible.

[3] Much has been written by various authors (Dressler 1972,1973; Rubach 1977,1981; Zwicky 1972a,1972b) on fast and/or casual speech phenomena, and while phonostylistics has been used as a testing–ground for many of the ramifications of the mainstream phonological theory its substantial basis was much neglected. That is in none of the works mentioned do we find a satisfactory and uniform account of criteria according to which speech is described as fast or slow. Another area of uncertainty centers around the problem of "gradual" versus "stepwise" increase in tempo which links to the question of how many speech–tempi should be distinguished. Apart from that, in all the so far accessible literature on fast/casual speech divisions into tempi were done on a rather limited corpus (however large it was) of skeletonized utterances (or their parts) i.e., utterances taken out of context of a discourse. Such a procedure of de–contextualization while convenient on practical grounds deprives speech of those factors which do influence speech–tempo and speech style i.e., fatigue and emotions.

In this paper a conscious effort was made to relate the author's tempi–judgements to just those elements of speech which can only be observed in a spontaneous, natural setting in which speech situations occurred.

a) *expression* /ɪks'preʃən/, *action* /'ækʃən/, *departure* /dɪ'pɑ:tʃə/ (alternating with *express act part*
b) *sensual* /'senʃʊəl/, *visual* /'vɪʒʊəl/, *gradual* /'grædʒʊəl/ (alternating with sense, visible, grade)

or in

c) *virtue* /'və:tʃʊ/, *immediate* /ɪ'mI:dʒət/, *educate* /'edʒu:keɪt/, *Neptune* /'neptʃu:n/ (non–alternating);

as well as across word–boundary as in

d) *...did you..*,/..dɪdʒʊ./, *...told you..*/...təʊldʒə.. /, *...as yet..*,/..əʒet../, *..these young..*,/...ðɪ:ʒʌŋ ../.

Leaving aside precise formulation of the PR (for which a reader is referred to Chomsky and Halle (1968:230), and to Rubach (1980:150) for a revision of it) some remarks are in order here as to the rule application in the above mentioned examples. Examples in a) differ from those in b), c) and d) in that the former have to, whereas the latter may be pronounced with palato–alveolar fricative of affricate. Optional alternation of non–palatalized sequences of an alveolar + */j/* with palato–alveolars in words in b) and c) can only partially be traced to the distinction between fast versus slow speech since both forms can be heard in fast as well as in slow speech – the variation being largely non–systematic, i.e., palato–alveolars show only statistical tendency to occur in fast/casual rather than in slow speech. This, however, cannot be said about the examples in d) where the optional process of alveolar palatalization across word boundary shows a high degree of correspondence of its outcome with a stylistic difference in a tempo of a delivery i.e., forms like *..get your..*./...getʃə../ or *..miss you...*/...mɪʃə../ are *highly* improbable in slow speech but have a high profile in fast/casual speech.

Another observation which has to be made in this connection concerns the position of stress in relation to the palatalizing */j/*. The PR as formulated in Chomsky & Halle (1968) requires that the vowel which follows */j/* be unstressed. Whereas this is the case in most of the examples cited there in slow speech, it is not the case in fast/casual speech across word boundaries and even within word boundaries in very rapid, casual styles. As shown by Rubach (1976) and by Gussmann (1978) the rule is observed to apply in an extended fashion in fast speech to those palatal glides which come from words bearing a stress on an initial syllable i.e.,*..last year...* /...la:stʃə:.../ or *..those yesterday...* /...ðəʊʒestədeɪ../, and can be attested to palatalize alveolar stops in a very rapid/casual style within word boundaries when */j/* is followed by a stressed vowel as in *tune, tumor, duty, during*, /'tʃu:n/, /'tʃu:mə/, /'dʒu:tɪ/, /'dʒʊərɪŋ/ (these latter cases are however rare and not all words containing phonetic [tj] and [dj] show the same readiness to palatalize when under stress). In the present paper only this subpart of the rule in relation to tempo distinctions is investigated which palatalizes alveolar segments across word boundaries.

There have been other suggestions as to the nature of PR which point to possible grammatical (syntactic or lexical) limitations to its application and to the considerations of frequency–dependency of PR (these issues are briefly addressed below).

Phonetically PR is to be described as an instance of an assimilatory process, which together with a number of weakening processes and cases of segment loss characterizes "normal", i.e. , fluent, casual speech.

In the present paper the following terms are employed in the presentation and discussion of the data used:

a) possible context – any number of sequences /t + j/, /d + j/, /s + j/, /z + j/ which has been recorded for a particular speaker in a given time across word boundary, where an alveolar and the palatal glide are immediately adjacent

b) actual occurrence – any number of target–like palatalizations of an alveolar (palato–alveolar segments) recorded for a particular speaker in a given period of time out of "possible context"

c) approximate occurrence – any number of non–target–like palatalizations (segments with varying degree of palatalization) recorded for a particular speaker in a given period of time out of "possible context"

d) 0 degree occurrence – any number of non–palatalized sequences: /t + j/, /d + j/, /s + j/, /z + j/ out of "possible context" recorded for a given speaker

In other words, the analysis of transcribed strings containing sequences of an alveolar + palatal glide showed that throughout the two periods examined, learners' attempts at producing target–like palato–alveolars in this context have to be viewed in terms of the continuum (palatalizing continuum – PC) with the following approximations toward the target tabulated below:

TABLE I

I	II	III	IV	V
[t + j]	[t'j]	[t$^{\text{ç}}$]	[tʃ]	[tɕ]
[d + j]	[d'j]	[d$^{\text{ʝ}}$]	[dʒ]	[dʑ]
[s + j]	[s'j]	–	[ʃ]	[ɕ]
[z + j]	[z'j]	–	[ʒ]	[ʑ]

Column I – 0 degree of palatalizations

Column II – "soft alveolars" i.e., only slightly palatalized alveolars with no audible change in the release phase of an alveolar

Column III – (stops only) a slight modification of the release phase resulting in short voiceless or voiced off–set at the palatal region (transitional palatal fricative)

Column IV – target–like, palato–alveolar segments[4]

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[4] At this point it has to be remarked that the consequences of arranging the segments on PC according to an increasing degree of palatality could mean that learners at their first approximations toward target palato–alveolars "overshot" the desired articulatory positions to alveo–palatals only to later correct themselves to target palato–alveolars. This interpretation and its consequences are not however pursued in this paper.

Column V – alveo–palatal segments i.e., palataltization affected segmental characteristics of an alveolar

The instances of non–target like palatalizations, i.e., approximations from columns II, III and V are considered together unless otherwise specified (sometimes, especially in percentage calculations, they are treated together as points on PC and then this total number of approximations to the target forms a basis for percentage calculations).

RESULTS

In the tables below scores for L. in T:I and L. in T:III are presented together with the percentage score for the segments from PC,

TABLE II

		L. 's T:I			L. 's T:III		
		recorded cases of:	% of palatalized cases from	% of non–palatal. cases from possible context	recorded cases of:	% of palatalized cases from	% of non–palatal. cases from possible context
POSSIBLE CONTEXT		19			41		
overall cases of palatalizations	ACTUAL OCC	6	50%		25	67.5%	
	APPROX OCC	6	50%		12	32.5%	
NO OCCURRENCE		7		36.8%	4		9.8%

The same data is tabulated below, but this time with segments' distribution from POSSIBLE CONTEXT over two different speech tempi included (allegro and presto are treated as one – see note 5).

TABLE III

		T:I				T:III			
		lento		allegro presto		lento		allegro presto	
overall cases of palatalizations	ACTUAL OCC	9	5	3	1	17	10	20	15
	APPROX. OCC		4		2		7		5
NO OCCURRENCE		3		4		4		0	

DISCUSSION

Looking at the data arranged in Table II, a simple picture seems to suggest itself: L. improves on his score of target–like palatalizations by 17% and drastically cuts down the percentage of non–palatalized segments in an otherwise appropriate context thus showing that he has identified the regularity involved and is on the way to eliminating non–target palatalized segments (compare APPROXIMATE OCCURRENCE: 50% in T:I – 32.5% in T:III) in favor of target–like palato–alveolars. On such view the four non–palatalized cases (9.8% out of POSSIBLE CONTEXT) from T:III are regarded as cases of learner's non–native variability in PR application at this particular time of L2 learning – cases which, when the regularity is fully realized, are to be eliminated (together with non–target "palatalized" segments) in favor of the target palato–alveolars. When, however, tempi considerations (TABLE III) are plotted against this simple view of fluency–gain, the picture becomes more complicated.

Out of ACTUAL OCCURRENCE of PR in T:I only one is attested in allegro/presto styles compared with five in lento. Two palato–alveolars occur in a very slow, almost "word–by–word" type of pronunciation. On the other hand, four out of seven non–assimilated cases occur in allegro/presto styles and three in lento. Given that PR is a fast–speech process, we would expect just an opposite distribution of the segments from PC over the tempi. All six cases of palato–alveolars (ACTUAL OCCURRENCE) independent of tempo considerations have no /j/ following them, and the assimilated alveolars are stops in one of the following words: *what* and *would* (in ..*get you*... and in ...*beat you*... pronounced at different tempi no degree of palatalization has been attested). Out of APPROXIMATE OCCURRENCES five cases are "soft" alveolars and only one shows a slight modification under the influence of assimilation–causing /j/, eg,...*put you* ...[pʊtᶝju:].

When we now turn to L.'s data from T:III and compare it with that discussed above, certain interesting observations can be made. L.'s scores for T:III with relation to speech–tempi distinction are as follows: out of 25 cases of actual occurrence of PR application stated 15, (that is 60%) are observed in allegro/presto and 9 in lento. All instances of an alveolar segment + palatal glide not affected by any degree of palatalization (i.e., 4 cases from 41 cases of POSSIBLE CONTEXT) are recorded in lento style only. As far as not fully assimilated alveolars go (APPROXIMATE OCCURRENCE) their percentage has dropped down in comparison to T:I (from 50% to 32.5%) but their distribution over the tempo spectrum shows the same insensitivity to speech tempi distinction as for T:I, i.e., they show no preference for either lento or allegro/presto styles. Lexical items in which final alveolars are assimilated rose dramatically from 2 in T:I *(what, would)* to 15 in T:III, and palatalization including /j/ can be observed to come not only from words of "*you*" class but also from words like: *yet* and *yesterday* as in ..*no*[tʃ'j]*et* or *comm*[d'j]*esterday*.

DISCUSSION

As has been pointed out above, the figures taken at face value suggest that L. proceeds successively with his fluency score toward target–like palato–alveolars at the expense of an ever–diminishing number of non–palatalized segments and non–target like palatalizations, thus eliminating them from his grammar in the course of learning (compare TABLE II). This however, does not explain why and how L. internalizes regularities of PR and, what is even more important, does not show what the regularities involved are, or rather, what the learner thinks they are. Specifically what remains unexplained is the existence of non–fully palatalized segments in T:III in view of the fact that, if L. in 67% of the cases appropriately identified the context for PR application, then given a phonetic nature of the rule this 33% of APPROXIMATE OCCURRENCES looks strange.

What these considerations suggest is that what is typically described as a fast speech rule of English has been adopted to L.'s IL in T:I as a frozen structure which subsequently came to be lexically (grammatically) restricted to a limited number of items and applied to them indiscriminate of speech–tempo distinctions. That lexical (grammatical) conditioning is at play in T:I can be seen from a failure of a "rule" to apply to /t,d/ coming from words other than *what, would* as in [gɔt ju:], [bɪ:t ju:]. What suggests even more that no phonetic conditioning of post–alveolars is at work in T:I in L.'s IL, and consequently, that no rule of palatalization can be identified in L.'s IL is the fact that other alveolars; /s,z/ are immune from this would–be palatalization rule – no rule no extension of the domain. There is still another observation which suggests that all 6 cases of target–like palato–alveolars at T:I cannot be attributed to L.'s PR but that they have been acquired as fixed structures. Namely, the earliest attempt and straightaway target–like was the phrase *what you doing* pronounced by L. as "whache doing" [wʌtʃᵊduwɪŋ] in lento style with no /j/ following the assimilated alveolar.

However, the existence of some "surface" palatalizations of /t/ and /d/ together with one instance of /t/ palatally released into voiceless palatal fricative [ç] might suggest that L. is on the way to identifying the process as phonetically rather than grammatically conditioned. Seen from this point of view we would expect L.'s data from T:III to show less restrictive application of what is becoming a phonetically motivated process. And this is what the data in T:III reveals. Not only has the number of lexical items with word final alveolars (not only /t/ and /d/) increased, but the learner has also tried to generalize phonetic environment for /j/ to new items like *yet* and *yesterday* (in his own creation: *commed yesterday*) which suggests that he has recognized in his grammar PR as being phonetically motivated and tried to apply the rule to new environment.[5]

HYPOTHESIS

The hypothesis that is adopted here is that there are basically two independent factors at work in learner's developing IL responsible for variable occurrence of segments from PC over a tempo spectrum across word boundary before palatal glide /j/. It is assumed that these two factors, which we will call "grammatical conditioning" (g.c.) and "phonetic conditioning" (p.c.), exist parallel to each other in learner's IL,

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[5] The decission to treat allegro and presto styles as one arose out of simple convenience. The author, however, admits that from a theoretical point of view this might be regarded as at least dubious move.

but that their developmental gradients are of a different value, that is, the force with which they condition the occurrence of segments from PC decreases in the case of g.c. throughout the time T:I – T:III, and increases in the case of p.c. throughout the same period. In other words, g.c. is to be seen as predominant during T:I and then slowly recessing towards T:III., phonetic conditioning, on the other hand is the "weakest" in T:I, successively gaining ground in T:III. However, as in T:I there are already signs of p.c. to be discerned, so in T:III there is still some effect of g.c. on the occurrence of the segments from PC in force. This can be schematically illustrated by the diagram in Fig. I below:

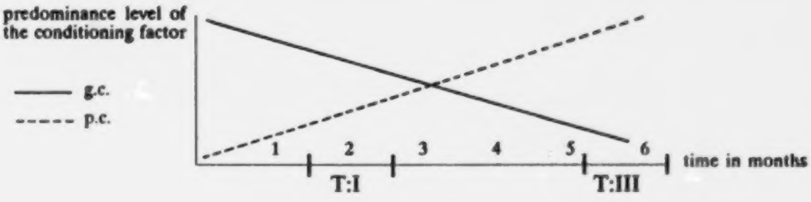

FIG. I

What this means in terms of L.'s data in T:I is that at this time when g.c. is assumed to be the strongest, the instances of no–occurrence are attributed to the fact that all of them do not comply with the rule that L. then seems to have and which says that only /t,d/ from lexically marked items are realized as palato–alveolars. However, the existence of APPROXIMATE OCCURRENCES even at T:I is attributed to the parallely existing but still weak identification of the environment /t, d, s, z/##/j/ as palatalizing context. Another consequence of this hypothesis would be that grammatically conditioned occurrence of palato–alveolars which is not style and tempo dependent in T:I, shows an increasing sensitivity to tempi distinctions (compare T:III) once g.c. has started to give way to p.c. This would account for the fact that non–palatalized cases of an alveolar + /j/ occur only in lento style and gross of number of palato–alveolars (ACTUAL OCCURRNCES) is attested in allegro/presto styles (compare TABLE II and III). As for the remaining palato–alveolars (10 cases in T:III in TABLE III) their occurrence in lento would be attributed to diminishing influence of g.c. in T:III i.e., to g.c. still lingering behind (or to g.c. gaining ground anew and working together with phonetic factors – more on this below).

SECOND LEARNER

We now turn to H.'s data for the confirmation of the observations made in the previous paragraph. H.'s scores for T:I and T:III together with percentage calculations are given below:

TABLE IV

		H. 's T:I			H. 's T:III		
		recorded cases of:	% of palatalized cases from:	% of non–palatalized cases from possible context	recorded cases of:	% of palatalized cases from:	% of non–palatalized cases from possible context
POSSIBLE CONTEXT		55			59		
overall cases of palatali – zations	ACTUAL OCC	25	52%		37	74%	
	APPROX. OCC	23	48%		13	26%	
NO OCCURRENCE		7		12.7%	9		14%

and the same data with speech tempi distinctions included is tabulated in Table V below,

TABLE V

		T:I				T:III			
		lento		allegro presto		lento		allegro presto	
overall cases of palatalizations	ACTUAL OCC	31	14	17	11	24	13	26	24
	APPROX. OCC		17		6		11		2
NO OCCURRENCE		4		3		8		1	

H.'s data from T:I and T:III seems to be in agreement with what we have seen in L.'s case although there are some individual differences. Out of total POSSIBLE CONTEXT of 55 cases in which PR across word boundary could apply 11 cases of palato–alveolars are found in allegro/presto and 14 in lento styles. Out of 7 cases of NO OCCURRENCE (12.7% of all possible context), 3 occur in allegro/presto and 4 in lento. This more or less even score for lento versus allegro/presto styles is ascribed under our hypothesis to H.'s rule which makes no mention in its description of tempo–dependency of PR,; rather it takes PR to be grammatically (lexically) conditioned i.e., dependent on the word–class in which relevant segments appear. This would explain why palato–alveolars show no sensitivity to tempi distinctions in T:I, once we have assumed that it is only after p.c. has become predominant in T:III that tempo recognition shows up in learner's IL.

The cases of non–palatalized sequences (all .../s/##/j...) confirm the hypothesis even more since if PR were identified as phonetically conditioned at T:I we would expect it to behave as any other phonetically motivated rule i.e., we would expect other alveolars to be subsumed under its application in the 3 cases in which the sequence .../s/##/j/... appears in allegro/presto styles. That it is not the case at T:I for H. means that the occurrence of palato–alveolars is grammatically conditioned and limited to word final alveolar stops only. Consequently, this suggests that in the case of both learners at T:I we cannot place PR among phonological rules in those learners' grammars.

Similarly, the 23 cases of APPROXIMATE OCCURRENCE (48% of all palatalized segments) in H.'s T:I are ascribed to his increasing recognition of the palatalizing context as phonetically conditioned, and the fact that there are more "closer-to-the-target" approximations than in the case of L. in the same period (14 alveo-palatals and 9 "soft" alveolars) shows that individual variation exists in the way the two conditioning factors for PR enter the learners' Ils.

When we now consider H.'s data from T:III, strikingly similar conclusions to those drawn in the case of L. can be reached. Whereas at T:I palato-alveolars occurred 56% of the time in lento and 44% of the time in allegro/presto (which was attributed to the fact that palatalization had not yet been discovered to be tempo-sensitive) at T:III the score is substantially reversed with 64% of palato-alveolars in allego/presto and 36% in lento styles. In terms of our suggestion this is to be interpreted as a modification of a learner's grammar following the recognition of the phonetic nature of PR. As the hypothesis would predict, non-palatalized strings /sj/, /zj/ and /dj/ occur almost exclusively in lento style with only one case in allegro/presto.

What yet requires an interpretation is the existence of not-fully palatalized segments from columns II, III and V of our PC (to simplify the picture they are all treated "en masse" as approximations toward target segments). At T:I we have the following distribution with refference to tempi distinctions: 6 times in allegro/presto and 16 times in lento style. In general, disregarding tempi distinctions for the moment, there is a decrease in the percentage of non-target-like palatals of about 22% at T:III (compare 12% decrease in L.'s case). Just as has been claimed in the case of the first learner that the existence of non-fully palatalized variants, i.e., segments from columns II, III and V is ascribed to the fact that the learner only starts to realize phonetic nature of the process which at T:I is predeminantly lexically conditioned, so it is claimed to be a viable interpretation in the case of the second learner as well. The existence of tempo-disregarding non-fully palatalized segments in T:I and the polarization of H.'s score toward fully palato-alveolars following the recognition of PR as tempo-dependent would suggest that, as in the case of L., attempts would be made by H. to generalize his findings to relevant segments in words other than those lexically marked at T:I. That this is not the case with H. at T:III (although the data provides at least three examples in which words other than those from the you class follow alveolar segments) might be due to individual variation in the way the two conditioning factors (see FIG. I) are related to each other over the two periods.

In the data under consideration there is yet another point of difference between L. and H., namely, in the extent to which at T:I grammatically conditioned occurrences of palato-alveolars in the context before /j/ across word boundary were restricted to lexical items (more in H.'s case, fewer in L.'s case). What this might mean in terms of our discussion is that the developmental sequences of each of the two learners were "caught" in a different state of learning of, what is described in terms of an end-product, a fast speech rule. Similarly, in the case of the lack of palatalization before /j/ coming from words other than the you class, it might be claimed that while L. at T:III was trying to extend his generalizations (which he induced from the input) to other environments, H. proceeded faster, and at the same time T:III avoided to palatalize alveolars before words other than the you class, thus reaffirming partially grammatical nature of this, in his IL otherwise phonetically conditioned, tempo–sensitive rule.[6] Whether it can be justifiably claimed that this L2 data, as fragmentary as it is reflects a parallel process of grammaticalization of a phonetically conditioned PR of English in L1 English speakers' phonologies is not entirely clear.[7] However the data can be seen to be in agreement with what at least some of the researchers claim the nature of PR in English is:

> "I agree that there is some frequency effect (so that, for instance, the frequent adverbs *yet* and *yesterday* are more acceptable as palatalizations triggers than *youthfully* and *usefully*) but the absolute acceptability of palatalization before *you* makes me suspect that this rule is at least in the process of being grammaticalized, with the morpheme *you* (or perhaps the category PRONOUN) being explicitly mentioned in the structural description". (Kaisse, 1985).

SUMMARY AND CONCLUSION

The acquisition of one fluency phenomenon of English by two L1 German children (PR) was studied with respect to tempo distinctions. The nature of the acquisitional process responsible for the developmental change over two periods of time was examined. It was suggsted that in the case of the two learners under discussion the regularity expressed by PR is acquired as the result of two, indirectly proportional to each other, conditioning factors, and that the resultant variability in PR's acquisition (its sensitivity to speech–tempi distinction) is directly proportional to the degree in which the rule is identified by the learner as phonetically conditioned.

Finally, it was observed that individual variation in the process of PR acquisition corresponds to the changing degree of influence of the two conditioning factors mentioned as a function of time of the learners' exposure to L2 input.

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[6] Whether this is to be attributed to differences in the learners' acquisitional processes or to the nature of PR itself will be the subject of a separate paper after more data (coming from an intermediate period T:II and from new subjects) has been investigated.

[7] The issue of the status of PR in English is separate one and does not fall within the scope of this process–oriented paper.

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COLLOCATIONS: THE MISSING LINK IN VOCABULARY ACQUISITION AMONGST EFL LEARNERS[1]

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PARADIGMATIC VERSUS SYNTAGMATIC RELATIONS

Linguistic units enter into different types of relations. A word or phoneme enters into a paradigmatic relation with all units which can also occur in the same context; and it enters into syntagmatic relations with the other units of the same level with which it occurs and which constitutes its context.

In phonology, sound elements can enter into paradigmatic and syntagmatic relations. For instance in the context /–ed/ (l) stands in paradigmatic relation with /b/ and at same time (l) stands in syntagmatic relation with /e/ and /d/.

Sentence constituents can enter into paradigmatic and syntagmatic relations. In the phrase "green tree", the adjective "green" stands in paradigmatic relation with "big", "small" etc., whereas it stands in syntagmatic relations with the headword "tree".

Here we are not concerned with paradigmatic but rather with syntagmatic relations of linguistic units as they shed some light on the co–occurrence of lexical items. Any violation of co–occurrence rules inevitably results in an incorrect use of collocations. Such violation which is ordinarily committed by inexperienced EFL learners results in a language output which can at best be characterized as unidiomatic and at worst as unintelligible.

One may venture to state, though prematurely that EFL learners commit errors in collocating words simply because they tend to join words which are semantically compatible, but unfortunately joining words which are semantically compatible does not always produce an acceptable co–occurrence. For example the word "several" is a synonym of "many" but the co–occurrence of "several thanks" is unacceptable, whereas "many thanks" is acceptable. Likewise, in English we can say, "seized the opportunity", but not "caught the opportunity".

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[1] This ais a revised version of paper presented at the 8th Annual TESOL Convention in Athens Greece, April 1987. The author would like to thank Dr. Kapur Ahlawat for his useful comments on an earlier version of this article.

Each of the co-occurrences "several thanks", and "caught the opportunity" would be understood the first time it was heard, because the hearer would already know the meaning of the separate parts. "Similarly, the learner himself might produce them without ever having heard them because he knows the meanings of the parts are compatible" (Wilkins 1972:127).

OBJECTIVES AND METHODOLOGY

The major goal of this study was to assess and evaluate third-year and fourth-year students majoring in English as to their ability to collocate words correctly in English. For this purpose a 40 item test measuring students' ability in collocations was developed. Each test item was followed by four options from which students were instructed to select the correct one and circle it. (See Appendix 1).

The majority of items were followed by synonymous words which were at the same time familiar to students since the goal was not to test students' ability in vocabulary but rather in word-collocations, i.e. their ability to co-occur words properly as seen in item 26.

He was sentenced to five year's imprisonment for ....a signature.

a). falsifying
b). forging
c). imitating
d). copying

The answers were tabulated on computer sheets and a program was run to calculate frequencies and percentages.

The sample of the study consisted of 200 students majoring in English at Yarmouk University, Jordan. The sample comprised nearly 40% of the third and fourth year students in the English department in the second semester 1986-1987, the time when the study was undertaken. For the sake of convenience, entire classes were randomly selected but with proportionally greater selections from the fourth year. Fourth year students made up 61% of the sample and the female-male student ratio was slightly in favor of females (52%).

DISCUSSION OF RESULTS

Students' Achievement

Generally speaking, the students' level of performance was not satisfactory considering the fact that the subjects were majoring in English and not in other subjects. Only 3879 out of 8000 (48.4%) were answered correctly. That was far below the anticipated 60%.

English major students have been described as linguistically lacking in overall language proficiency. Reference here can be made to proficiency testing conducted at Yarmouk University by Zughoul (1985). Three groups of English major graduates took the Michigan Test of English language Proficiency. The mean of their equated scores was 67.7, which was far below the average of 82% required by American Universities for admitting undergraduate foreign students. If students are immensely lacking in overall language proficiency, one should not be surprised if their language ability was also lacking in specific areas: vocabulary, structure, pronunciation, and writing for instance.

However, the pattern of responses in individual items revealed a very interesting phenomenon. For instance in item 25, the frequency of correct responses was 174 (87%) for the collocation "Have a seat", but in item 8 it was only 10 (5%) for the collocation "to wear (her) make up". The interpretation for such a wide gap can be sought in the fact that the former is commonly used and is familiar to students while the students are barely familiar with the latter one.

It would be informative to list collocations with the highest correct frequencies and percentages and to attempt to explain why they were easier than others for students to answer correctly.

Table 1 shows that students did relatively well on collocations commonly used in everyday life. Such collocations are read and heard frequently in routine transactions such as, "have a seat" 87%, "Fine Arts" 72.5%, "alarm clock" 66.5%, "safety belts" 66%, "term paper" 58.5%. The relatively high frequency of correct responses of this category did not come as a surprise, since terms in this category are frequently used and encountered in everyday transactions.

Table 1. Collocations Ordered by Rank According to Frequencies and Percentages of Correct Responses (N = 200)

Item No.	Correct Collocation	Frequency	Percentage
25	have a seat	174	87%
20	Fine Arts	145	72.5%
27	alarm clock	133	66.5%
02	safety belts	132	66%
31	income tax	125	62.5%
28	radio set	122	61%
17	term paper	117	58.5%
36	Doctor's clients	112	56%
19	senior citizens	104	52%
06	hijacked a plane	103	51.5%
34	missing link	100	50%
18	weather forecast	98	49%
37	spare parts	91	45.5%
13	second thought	86	43%
		1624/2800	58%

The frequency of correct responses in this category was 1624 out of an ideal score 2800. Obviously, only 58% of the total collocations in this category were answered correctly.

INCORRECT COLLOCATIONS DUE TO NEGATIVE TRANSFER

In foreign language learning, learners are sometimes believed to make use of the forms and patterns of the native language and transpose them on the second language. When forms are identical in the two languages and the learner uses the first language in producing the second, positive transfer occurs. The result is a correct second language form or pattern. "When they are different, using those of the native language to produce the equivalent form or pattern in the second language causes negative transfer. The resulting errors are called interference errors". (Irujo 1986:289).

Table 2 shows the frequencies and percentage of incorrect collocations due to negative transfer, which can be defined as a strategy of literal translation from L1 into L2 by students.

Table 2. Collocations Ordered by Rank according to Frequency and Percentage of Incorrect Responses due to Negative Transfer (N = 200)

Item No	Incorrect Collocation	Frequency	Percentage
08	put make up	145	72.5%
35	moving sand	128	64%
32	red eye	106	53%
05	death number	103	51%
33	front lights	98	49%
01	group line	88	44%
09	hot blood	78	38%
12	formulation committee	74	37%
22	bitter drinker	70	35%
		890/1800	49.4%

In Item 8 a high percentage 72.5% used "to put make up" in analogy with the expression used in Arabic. Only a meagre 5% used the correct form "to wear make up". Likewise, the incorrect responses in items 35, 32, 5, 33, 1, 9, 12, 22 can be attributed to the strategy of translation, whereby the percentage of incorrect answers in these items ranged from 64% in item 35 "moving sand", to 35% in item 22 "bitter drinker". In Arabic the terms, "quick sand", "black eye", "death toll", "head lights", "party line", "cold blood", "drafting committee" and "hard drinker", are not used; however, their equivalents in Arabic are: "moving sand", "red eye", "death number", "front lights", "group line", "hot blood", "formulation committee", and "bitter drinker" respectively.

The percentages of correct responses related to the items in Table 2 were: "quick sand" 16%, "black eye" 23%, "death toll" 14.5%, "head lights" 33.5%, "party line" 23%, "cold blood" 27.5%, "drafting committee" 23%, and "hard drinker" 19%. These low percentages indicate the overwhelming influence exerted by the translation process employed by EFL Arab Learners.

The percentage of incorrect responses due to negative transfer in Table 2 was (49.4%), the highest for any category.

It is not within the scope of this study to delineate the socio, psychological conceptualization of reality as manifested by different languages. Therefore, issues of why in a language a certain expression is used while in another a different one is used as in "cold blood" and "hot blood" are not dealt with

INCORRECT COLLOCATIONS DUE TO IDIOM STRUCTURE

Idioms which are another form of collocations are fossilized forms and tend therefore to be learned *en bloc*. The attempt to construct them by joining semantically compatible items is invariably doomed to failure. A student who has not come across the idiom "maiden voyage" may construct unacceptable parallels such as "primary voyage", "first voyage" or even "prime voyage"; likewise, he may say "to break alike", "to break similar", or "to break equal" as substitutes for the idiom "to break even".

Table 3 shows the collocation errors that cannot be attributed to negative transfer from L1, but rather to a lack of familiarity with the structure of the whole expression or idiom.

Table 3. Collocations Ordered by Rank According to Frequency and Percentage of Incorrect Responses Due to Unfamiliarity with Idiom Structure (N=200)

Item No.	Incorrect Collocation	Frequency	Percentage
10	raise doubt	130	65%
21	primary voyage	91	45.5%
04	false raid	82	41%
30	raise (their) morale	80	40%
40	to break equal	75	37.5%
15	blind meeting(s)	74	37%
03	merit of the doubt	67	33.5%
		599/1400	42.8%

The production of correct idioms presupposes prior familiarity with them either through reading or listening. As can be seen in Table 3, errors cannot be attributed to negative transfer from L1, but rather to a lack of knowledge of the structure of the whole unit or expression. In this category the percentages of incorrect responses ranged between 65% for item 10 "raise doubt" and 33.5% for item 3 "merit of the doubt".

However, the percentages of correct responses related to the items in Table 3 were as follows: "cast doubt", 15%, "maiden voyage", 15%, "mock raid", 16.5%, "boost (their) morale" 13%, "to break even" 16%, "blind dates" 23% and "benefit of the doubt" 29%.

INCORRECT COLLOCATIONS DUE TO OVERGENERALIZATION

In learning a foreign language, a typical learner constantly attempts at reducing the syntactic and lexical aspects of the language under study by adopting the phenomenon of overgeneralization as a strategy to achieve his goal. In lexicon, this is evident in students' attempts to learn the most frequent words due to their usefulness and practicality. A student thus discerns that the word "animal" is more frequent and useful than the words hyena, beaver, llama, and goat since the former encompasses the whole class of animals.

Table 4. Collocations Ordered by Rank According to Frequencies and Percentage of Incorrect Responses due to Overgeneralization (N = 200)

Item No.	Incorrect Collocation	Frequency	Percentage
39	take highway 12	98	49%
29	pipe water	97	48,5%
16	cooperation government	80	40%
11	objection party	77	35%
14	bread pieces	77	35%
07	great punishment	75	35%
24	back mirror	70	35%
23	team supporters	68	34%
38	maternity section	64	34%
26	imitating a signature	60	30%
		766/2000	38.3%

Errors in Table 4 can be attributed to a strategy of overgeneralization; i.e. substituting generic term for specific terms as the latter do not lend themselves easily to the learner. Before we proceed, one would want to qualify these terms further; generic terms serve to designate the categories into which are fitted the terms of narrower scope, i.e. specific terms; thus for instance, a generic term such as "tool" will be used to create a category under which specific terms such as "pliers", "hammer", "saw", etc., are subsumed.

A major strategy generally adopted by EFL learners is the reduction of the target language to a simple system which is materialized through generalizations. As part of a reduction strategy aimed at learning economy, the learner by and large ignores acquiring and consequently using specific terms and subsumes them in generic terms. (See Jain 1974:197).

The percentage of incorrect responses due to overgeneralizations (i.e. substituting generic terms for specific terms) ranged from 49% on item 39 "take highway 12" to 30% on item 26 "imitate a signature", The incorrect responses in Table 4 can be attributed to substituting generic terms with which students are familiar for specific terms with which students are unfamiliar; the former characterized by frequency, usefulness and availability. Following are some generic terms with the specific terms subsumed under them.

	Generic	Specific
Item 29	Pipe	hose, hookah, faucet, tap, tube, line, etc.
Item 16	Cooperation	unity, union, participation, collaboration, confederation, coalition, etc.
Item 14	Pieces	parts, crumbs, shreds, fragments, etc.
Item 24	Back	rear, posterior, etc.

The percentage of correct responses related to the items in table 4 were: "take route 12" 20%, "tap water" 25%, "coalition government" 23%, "opposition party" 20%, "bread crumbs" 19%, "capital punishment" 28%, "rear mirror" 23%, "team fans" 22.5%, "maternity ward" 23.5%, and "forging a signature" 25.5%.

CONCLUSIONS AND IMPLICATIONS

This study was conducted to identify English major students' ability in collocating English words correctly. The overall students' performance was not satisfactory in light of the low rate of collocations answered correctly (48.4), and this is far below the rate (60%) initially set. Their relatively low achievement may be attributed to a host of factors.

1. Teachers's overemphasis of grammar in both teaching and testing at the expense of lexicon. Students' negligence of lexicon, and relegating it to a minor position is certainly a reflection of their teachers' attitudes. We tend to agree with Wilkins that "the fact is that while without grammar very little can be conveyed, without vocabulary nothing can be conveyed" (1972:111). I should like to extend this argument further and state that without the appropriate use of vocabulary, vocabulary learning is meaningless. Students should observe the restrictions on the co-occurrence of items within a sentence and heed lexical restrictions; the latter ruling out the co-occurrence of some words with others because of their incompatibility.

2. Students' insufficient reading experience is assumed to restrict their knowledge of vocabulary, synonyms, lexical restriction etc. It is known that knowledge of vocabulary is directly related to the amount of reading done by students. Idioms and collocations such as "cast doubt", "capital punishment" and "death toll" are acquired through reading and the chances are that an EFL learner cannot combine them correctly without having previously read or heard them.

3. Reduction and simplification which seem to characterize the components of the teaching situation. Jain (1974:197) reports, "In a second language teaching situation the learner alone is not engaged in this process." In fact all other components in the teaching situation – teaching materials, teaching techniques, popular school grammars, teaching and learning goals – are attempting to bring about learning economy through reduction of the second language along one dimension or another. Limited vocabulary, limited structures, abridged and simplified texts, simplified and very often oversimplified school grammar books are attempts in the same direction. Thus oversimplified generalizations seem to be built into a second language situation.

4. Students' overuse of guessing strategies in answering the test items. Such strategies do not generally arise in vacuum and are due to lack of solid knowledge of the structure of collocations.

Collocation errors by students are traceable to both L1 and other – than L1 sources; more specifically errors are due to: (a) negative transfer which was responsible for the highest percentage (49.4%) of incorrect collocations, (b) unfamiliarity with idiom structure which accounted for the second highest percentage (42.8%) of incorrect collocations, and finally (c) overgeneralization (i.e. substituting generic for specific terms), which accounted for 38.8% of the incorrect collocations.

The study concludes by making two broad suggestions, one for EFL teachers and the other for translators.

1. The correct use of collocations especially of those traceable to idiom structure cannot be under–estimated. Teachers can isolate some collocations of this category and systematically introduce them to students.

2. Finally, the implication of proper use of collocations to a theory of translation is too obvious to belabour. Since a translator's failure to produce correct collocations inevitably results in producing extracts devoid of idiomaticity, acceptability and perhaps intelligibility.

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APPENDIX 1

Major			
Year	2'nd	3'rd	Fourth
Sex	Male	Female	
Age			

Choose the correct answer (a, b, c, or d) from the following to fill in the blank spaces:

---

1. A telephone which is shared by two or more subscribers is called a .... line.

a). team
b). group
c). crowd
d). party

2. .... belts save people's lives in accidents.

a). Security
b). Safety
c). Saving
g). Salvation

3. If you really trust him, you should give him the .... of the doubt.

a). benefit
b). advantage
c). use
d). merit

4. The Civil Defense authorities announced that there would be a/an .... raid next week.

a). false
b). unreal
c). mock
d). wrong

5. By the weekend the death .... had reached 95, and those injured were 106.

a). list
b). toll
c). number
d). tax

6. One of the planes was .... and forced to change its destination.

a). kidnapped
b). stolen
c). robbed
d). hijacked

7. Anyone convicted of manslaughter is liable to .... punishment in this country.

a). grand
b). capital
c). great
d). big

8. She excused herself and went upstairs to .... her make up.

a). dress
b). lay on
c). put
d). wear

9. The poor peasant was murdered in .... blood.

a). cool
b). hot
c). warm
d). cold

10. The recent incidents .... doubt on the sincerity of the organization to provide services for the disabled.

a). give
b). cast
c). raise
d). put

11. The .... party held the government responsible for the high inflation.

a). objection
b). counter
c). contrary
d). opposition

12. The .... committee was assigned the task of writing the final agreement.

a). composing
b). drafting
c). formulation
d). writing

13. If somebody changes his idea about a matter, he is said to have second ....

a). thoughts
b). notions
c). ideas
d). concepts

14. We used to feed our pigeons bread ....

a). pieces
b). crumbs
c). shreds
d). chips

15. The habit of arranging blind .... is alien to Arab Society.

a). appointments
b). dates
c). meetings
d). arrangements

16. If he fails to win a majority vote in the election, the Labour Party will have to form a .... government with the Democrats.

    a). co-ordination
    b). co-operation
    c). coalition
    d). group

17. Students are supposed to submit a .... paper for Eng. 215 by May, 5.

    a). period
    b). yearly
    c). term
    d). semester

18. According to last night's weather .... , a snowstorm may hit the area soon.

    a). prediction
    b). forecast
    c). prophecy
    d). expectation

19. An elderly person, especially one who is retired is called a .... citizen.

    a). senior
    b). top
    c). first
    d). superior

20. The visual arts such as painting, sculpture, and architecture are called the .... arts.

    a). nice
    b). beautiful
    c). pretty
    d). fine

21. The first voyage of a new ship is referred to as a .... voyage.

    a). maiden
    b). primary
    c). first
    d). prime

22. George drinks a lot. He is a .... drinker.

    a). hard
    b). bitter
    c). strong
    d). tough

23. The team .... were terribly disappointed when the captain was injured.

a. supporters
b). encouragers
c). advocates
d). fans

24. The driver could see the traffic police through the .... mirror.

a). back
b). rear
c). behind
d). backward

25. Have a .... , please.

a). chair
b). couch
c). seat
d). sofa

26. He was sentenced to five years' imprisonment for .... a signature.

a). falsifying
b). forging
c). imitating
d). copying

27. My sister bought me a beautiful .... clock as a birthday present.

a). alarm
b). ringing
c). warning
d). bell

28. The burglars ran away with a T.V. and a radio ....

a). device
b). instrument
c). set
d). machine

29. After the current repairs of the city's water supply system, ... water will be safe for drinking.

a). pipe
b). tap
c). faucet
d). cable

30. The airraid on the enemy .... the morale of the infantry troops.

    a). increased
    b). boosted
    c). raised
    d). enhanced

31. The government has announced a 10% reduction on the .... tax to be paid by civil servants.

    a). revenue
    b). income
    c). earning
    d). input

32. The boxer gave him a .... eye, so he was taken to hospital.

    a). brown
    b). black
    c). red
    d). blue

33. Our driver stopped because the .... lights of the approaching cars were blinding him.

    a). head
    b). face
    c). front
    d). foreward

34. The missing .... that could solve the current crisis in Africa is to stress the role of agricultural development.

    a). bond
    b). connection
    c). contact
    d). link

35. Before they went for a stroll in the valley, they were warned to beware of the deadly .... sand.

    a). moving
    b). sinking
    c). quick
    d). rapid

36. The doctor's .... had to pay three dinars for consultation.

    a). customer
    b). client
    c). patron
    d). patronizer

37. We can't fix the car because we have to get some .... parts.

a). auxiliary
b). replacement
c). spare
d). extra

38. The nurse directed them to the maternity ....

a). wing
b). section
c). ward
d). hall

39. To get to the airport, truck drivers must take ....

a). road 12
b). route 12
c). street 12
d). highway 12

40. You won the first round and I have won this round. We break ....

a). alike
b). similar
c). equal
d). even

PRINCIPLES FOR A CONTRASTIVE PHONOTACTICS: THE HEBREW TRICONSONANTAL (CCC) ROOT SYSTEM A CASE IN POINT*

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I. INTRODUCTION: THEORETICAL AND METHODOLOGICAL BACKGROUND

In this paper we will present a quantitative analysis of the phonetic distribution of the Hebrew triconsonantal (CCC) root system based on the Columbia School approach of "Phonology as Human Behavior" which was originally presented for English in Diver (1979), further expanded and refined for Italian in Davis (1987). and compared and contrasted with other phonological theories in Tobin (1988a,b). One of the goals of this paper therefore will be to present a set of fundamental phonological or phonotactic principles which could be used in establishing a basic methodology for a contrastive phonotactics. According to this general approach, language is defined as a system of systems composed of various sub-systems (revolving around the notion of the linguistic sign) which are organized internally, and systematically related to each other to be used by human beings to communicate. Therefore "phonology as human behavior" is based on the following theoretical and methodological tenets:

(1) Phonetics and phonology are interrelated, mutually dependent and, thus, are not to be studied autonomously and independently of each other.

(2) Phonetics = Description of what sounds occur and which features (articulatory and auditory) they are composed of – i.e., how individual sounds are articulated and perceived – the "what" and "how" of the realized sound system of (a) language. ("What", "Where" and "How" = Description)

(3) Phonology = A postulation of the abstract units of the sound system of (a) language (e.g., the notions of the phoneme composed of distinctive articulatory and auditory features) as well as an explanation of the favored and disfavored combinatory distributions of different sounds – i.e. why different sounds occur or do not

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occur with different statistical skewings in: (i) specific phonetic environments as well as (ii) in collocation with other sounds. i.e., not just "where", "what", and "how", but "why". ("Why" = Explanation)

(4) The fundamental problem of phonology, therefore, is to explain the observable phonotactic skewings of the distinctive sound units of language which can be verified both synchronically and diachronically as they have developed over centuries by speakers of the language.

(5) We may assume that these long-range, non-random recurrent phonotactic skewings represent favorings and disfavorings of certain collocations of distinctive sound units in different phonetic environments.

(6) We may further assume that these different phonotactic skewings, i.e. the skewed favorings and disfavorings, are reflections of specific aspects of human behavior, perception and cognition which are exhibited in other areas of human behavior in general, and communicative behavior in particular, which, like language, are also learned.

(7) We also may infer that a disfavoring may represent a difficulty in the learning process, or in perception, and by examining what constitutes a difficulty in a particular learning process, we can infer what is being learned or perceived.

(8) What is being learned or perceived may then be identified as a characteristic of the distinctive units.

(9) Thus, an explanation of the long-range, non-random recurrent phonotactic skewings representing favorings and disfavorings of certain collocations of distinctive sound units in different phonetic environments may provide us with distinctive features of sounds in a way which will be comparable to other areas of human behavior; therefore allowing us to view phonology as an instance of human perception and cognitive behavior.

In short, we may view this approach of "phonology as human behavior" as axiomatically combining two synergetically interrelated orientations: the communication factor (the teleological function of language) with the human factor (the users of language). This approach, therefore, may be selectively viewed as part of an historical chain in the development of twentieth century phonological theory beginning with Saussure and continued by the Prague School and André Martinet. Since this study attempts to deal quantitatively with the combinatory phonology of the Hebrew (CCC) root system to specify the semiotic implications of the synergetic relationship between the communication and human factors, it may also be related to other quantitative approaches to sign-oriented language and phonology in general (Herdan 1966, Shannon and Weaver 1949), phonometrics (Zwirner 1970) and phonometric based phonotactics (Bluhme 1964), and language synergetics (Altmann 1978, Altmann and Lehfeldt 1980), approaches which have been discussed, compared and contrasted in Tobin (1988c,d).

II. THE DATA

We will present here only a partial analysis of a limited number of selected variables of the combinatory phonotactics of the (CCC) root system of a generalized (panchronic) view of Hebrew, leaving a more complete analysis for different periods and dialects of Hebrew for future research. Our analysis entails the application of general phonological principles that were previously postulated and examined for all the monosyllables found in English and Italian dictionaries to the more abstract pre–lexical notion of the (CCC) root system of Hebrew. In other words, our data represent abstract linguistic signs prior to the lexicalization process of word formation.

The difference in the unit of analysis has certain theoretical and methodological implications. Much of the research on English and Italian focussed on word–inital and word–final consonants. Therefore, these consonants were being examined at the beginnings and ends of clearly defined and relatively well–segmented independent units. This is not the case with the Hebrew (CCC) root system. Hebrew roots do not appear *as* words, but rather *in* words. Unlike words, however, these roots are not clearly defined, well–segmented independent units. The first and third consonants of a (CCC) root do not necessarily appear in word initial and word final positions. Not all (CCC) roots are transparent, nor are they always easily segmented within words. Thus, the successful application of phonological principles previously applied to the more concrete unit of monosyllabic words to this more abstract pre–lexicalized level of (CCC) roots should provide a strong confirmation of their theoretical and methodological validity.

Our data base consists of all the (2773) (CCC) roots appearing in the latest edition of the *Even–Shoshan Condensed Hebrew Dictionary*, a standard dictionary used in Israel today. This particular dictionary was chosen because it lists the roots and indicates the historical period (Biblical, Talmudic, Mishnaic, Medieval, Modern and Contemporary) of entries, and also includes the entire range of spoken and written registers. The use of a dictionary as a data source forces us to rely on a standard Hebrew orthography, which, like most alphabets (or syllabaries), represents a fairly accurate phonemic analysis of the sound (or consonants) of the language spoken when the writing system was developed. Such a standardized orthography may best represent a general or panchronic view of language's sound system. The choice of all the (CCC) roots found in the lexicon is motivated by the principle of "the least possible evil" with regard to finding a reasonable representation of the various diachronic and synchronic stages of both spoken and written Hebrew which would provide as broad a data base as possible to yield significant statistical generalizations about Hebrew.[1]

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[1] We are presenting an (oversimplified) panchronic view of Hebrew whereby certain unavoidable diachronic, orthographic and dialectal inconsistensies are present. These include the Biblical occlusive–spirant allophonic (today basically phonemic) alternations (p–f, b–v, k–x) (which have also been partially maintained in General Israeli), as well as the similar (g–ɣ, d–ð, t–θ) alternations which have been lost. Orthographically, each pair is represented by a single letter only. We also will maintain the pharyngeal "*xet*", "*ayin*" and the glottal stop "*aleph*" as well as the so–called "apical (r)" which do not necessarilly appear in General Israeli, and (lip +) post–dorsal /w, q/, even though /w/ has been replaced by /v/ and /k/ and /q/ have merged. We list "*tet*" and "*taf*" as +Ṫ–t" but view them as a single sound, while +"S" representing two distinct sounds today, (ʃš + s) will be treated as a single unit. We will not specifically deal with the ejective consonants well–known in Semitic either. We would like to add, however, that the patterns we have uncovered for this panchronic view of Hebrew are even strengthened in General Israeli speech where there are fewer communicative distinctions involving fewer (particularly back) active articulators.

III. ACTIVE ARTICULATORS, CONSTRICTION AND AIR FLOW

We first found the traditional consonantal categories (e.g., place of articulation, manner of articulation, voicing) previously used in studies of the Semitic and Hebrew root system (e.g., Greenberg (1950), Herdan (1962), Morgenbrod and Serifi (1981)), to be wanting for the following reasons:

(1) Place of articulation often merely labels a passive or receptive articulator only, (dental, alveolar, palatal or post–alveolar, velar, etc.).

(2) Manner of articulation often includes specific place information together with labels indicating different degrees of constriction and air flow (e.g., oral vs. nasal stops, central vs. lateral (alveolar) fricatives and/or approximants) and also includes place oriented and/or articulator oriented phonation processes (e.g. labialization, dentalization, palatalization, velarization, nasalization, glottalization, etc.).

(3) These and other manner categories (e.g., consonants versus vowels, semi–vowels, liquids, glides, approximants, and/or obstruents versus resonants, etc.) often depend on the concept of voicing and are all directly or indirectly related to different degrees of constriction and air flow.

(4) Voicing also spans the opposition of place and manner and is related to both specific articulators (the larynx, glottis, vocal folds) and different degrees of the control of air flow (fortis vs. lenis).

Therefore, we replaced these imprecise traditional categories by alternative concepts such as "active articulators" and "scales of relative degrees of stricture and airflow" which have been applied more directly to the communication and human factors inherent to our approach.[2]

IV. THE HEBREW CONSONANT SYSTEM:
THE ACTIVE ARTICULATORS

We first examined the Hebrew consonant system according to the concept active articulators. The six active articulators which can be postulated for Hebrew are the lips, the tongue divided into three parts (apex, ante–, post– dorsum), the pharynx, and the glottis.

The Hebrew consonants distribute in the following manner with regard to the active articulators:

(1) lips:	/p, b, m/;
(2) apex:	/t–T, d, n, ts, r, s, z, l/;
(3) ante dorsum:	/ʃ, j/;
(4)$_a$ post–dorsum:	/k, g̣/;
(4)$_b$ (lips/velum +) post–dorsum:	/ħ, ʕ/;

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[2] Diver (1979) originally proposed two alternative distinctive manner features (stabile + mobile) to explain all the various favorings and disfavorings of of initial consonant clusters composed of "stop + r" versus "fricative + l" in English monosyllables. In Davis (1987) this approach is expanded and includes these and other consonant and vowel features as part of a single continuum.

(5) pharynx: /ħ, ʕ/;
(6) the glottis: /ʔ, h/.

The first basic tenet of phonology as human behavior is that speakers of a language are learning how to control the musculature of different articulators to systematically produce distinctive sounds composed of relative degrees and patterns of constriction and air flow to communicate.

V. THE DISFAVORING OF ADDITIONAL ARTICULATORS

The second basic tenet of phonology as human behavior is that there should also be a direct connection between the relative difficulty involved in learning how to control the musculature of the various articulators needed to produce distinctive sounds and the non–random distribution of those sounds within the language. If, for example, we examine what are traditionally called the voiceless–voiced–nasal triads of the Hebrew labials /p–b–m/ and apicals /t–d–n/ according to the number of active articulators speakers must learn to control, we find that they form the following tri–dimensional hierarchy:

(1) Voiceless (0) = active (oral) articulators only;
(2) Laryngeal (+1) (L) = active (oral) articulator(s)
+ vocal folds;
(3) Nasal or Velar (+2) (V) = active (oral) articulator(s)
+ vocal folds
+ uvular).

An examination of the twenty–two consonants of Hebrew with the number of sets of active articulators speakers must learn to control reveals:

0 – /p, t–T, ts, s, S, k, q, h, ʔ, ħ/ = 11
+1 (L) – /b, d, r, l, z, j, g, w, ʕ/ = 9
+2 (V) – /m,n / = 2

The largest number of consonants in Hebrew (11) entail the fewest active articulators needed to be controlled (Ø); closely followed (9) by those consonants where only one additional set of active articulators needs to be controlled (+1); followed by a sharp drop (2) for those consonants where a second additional set of active articulators needs to be controlled (+2). There is a direct connection between the Hebrew consonant system and this tri–dimensional hierarchy clearly indicating a consistent disfavoring of those consonants for which speakers have to learn to control additional sets of active articulators. Therefore the Hebrew (CCC) root system reflects the well–known synergetic principle of linguistic economy: the need for communicative efficiency (a maximum number of distinctive communicative oppositions) maintained with a minimum of effort.[3]

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[3] This principle may also be applied, in part, to the loss or merger of certain oral consonants as well. (There may be additional sociolinguistic reasons for the well–known loss of pharyngeal or glottal consonants in Hebrew.) Indeed, many of those consonants which have been replaced by or have merged with other consonants, (e.g. /w–v/, /q–k/, /T–t/, are precisely those consonants requiring the control of more than than one articulator, (lips/velum + P–Dorsum, ejective versus non–ejective).

VI. THE DISFAVORING OF ADDITIONAL ARTICULATORS IN ADJACENT PHONETIC ENVIRONMENTS

This disfavoring of additional articulators may not only be observed within the phonemic system, but also may have wider implications for the combinatory phonology or phonotactics of a language. It has been shown, for example, that there is a general and significant disfavoring of the use of additional articulators in adjacent phonetic environments. The specific adjacent phonetic environments examined include consonants composing word initial consonant clusters in English monosyllables; word initial consonant clusters and word final consonants and consonant clusters in English monosyllables; word initial and word final consonants in English and Italian monosyllables.

An examination of the first and third consonants of the Hebrew (CCC) root system according to the tri–dimensional hierarchy of the number of active articulators reveals the following distribution:

	Ø		L (+1)		V (+2)	
I	1537	55.4%	917	33.1%	319	11.5%
III	1284	46.3%	1084	39.1%	405	14.6%

(1) Approximately half of all the initial and final consonants involve only one set of active articulators (Ø).

(2) Approximately one–third to forty per cent of articulators involve one additional set of active articulators (+1);

(3) Approximately ten to fifteen per cent of consonants involve the use of a further additional set of active articulators (+2).

This disfavoring of additional articulators in the Hebrew C–I and C–III positions both reflects the distribution of the Hebrew consonants within the phonemic system and supports the previous research done for English and Italian.

VII. THE HEBREW CONSONANT SYSTEM: STRICTURE AND AIR FLOW

Before we could further examine the skewed phonotactic distribution of the Hebrew consonants within the (CCC) root system, we had to look at the other important features of consonants: "scales of relative degrees of stricture and airflow". Three degrees of air flow and five degrees of stricture have been postulated for both the consonants "phonemes of constriction" and vowels ("phonemes of aperture") of Italian (Davis 1987). However, since we are dealing exclusively with consonants, or "phonemes of constriction", we will only need to present here two degrees of each.

The Hebrew consonants can be classified in the following way based on this hierarchical scale (Ø–2) of stricture and air flow:

(1) Complete constriction (Ø) and complete obstruction of the air flow (Ø): /p, t–T, k, ʔ, q, b, d, g/.

(2) Complete constriction (0) and partial (non–turbulent) obstruction of air flow (2): /m, n/.

(3) The next degree of (incomplete) stricture (1) and (turbulent) air flow (1): /(f–v), s, S, (x) h, ħ, z, ʕ/.

(4) Transitory (complete–incomplete) constriction (Ø–1) and (obstruction–turbulent) air flow (0–1): /ts/

(5) The next degree of incomplete stricture (2) and (non–turbulent) air flow (2): /l, j, w/.

(6) Lastly, an intermediate degree of constriction (1/2) and (turbulent) air flow (1/2): /r/.

There is an integral connection between the active articulators and the relative scale of stricture and air flow. Both sets of features must be taken into account when studying the combinatory phonology of the Hebrew root system.

VIII. THE DISFAVORING OF ADDITIONAL ARTICULATORS IN ADJACENT PHONETIC ENVIRONMENTS FOR DIFFERENT ARTICULATORS

We first observed the general disfavoring of additional sets of active articulators for what traditionally has been referred to as voiceless–voiced–nasal oppositions. We then examined whether a similar disfavoring can also be found for what is usually referred to as voiced versus voiceless obstruents. A comparison of those consonants sharing the same active articulators and the same degrees of constriction and air flow, but differing (Ø, +1) within the tri–dimensional hierarchy reveals the following distribution:

	Lip		Apex				P-Dorsum		Pharynx	
			First Position: C-I							
			T	77			q	139		
(Ø)	p	166	t	144	s	144	k	110	ħ	175
				—				—		
				221				249		
(+1)	b	127	d	103	z	77	g	121	ʕ	159
		—		—		—		—		—
Difference:		(39)		(- 118)		(- 67)		(- 128)		(- 16)

	Lip		Apex				P-Dorsum		Pharynx	
			Third Position: C-III							
			T	99			q	148		
(Ø)	p	141	t	73	s	105	k	81	ħ	126
				—				—		
				172				229		

(+1)	b	137	d	144	z	61	g	67	ʕ	119
		—		—		—		—		—
Difference:		(-4)		(-103)		(-44)		(-162)		(-7)

These data indicate a further "across the board" disfavoring of additional articulators (0, +1) (voicing) in the phonetic environment of C–I and C–III positions for consonants sharing the same active articulators and the same degree of stricture (0– 0 stops) (1–1 fricatives), for the following active articulators:

(a) lips:	/p–b/	(I – 39),	(III – 4)
(b) apex:	/t+T–d/	(I – 118),	(III – 103)
	/s–z/	(I – 67),	(III – 44)
(c) p–dorsum:	/k+q–g/	(I – 128),	(III – 162)
(d) pharynx:	/ħ–ʔ/	(I – 16),	(III – 7)

This further disfavoring of additional articulators within adjacent phonetic adjacent environments supports the previous research done for English and Italian. It must be mentioned, however, that these data, are particularly vulnerable to the methodological problems we have previously discussed.[4]

IX. THE PREFERENCE FOR PHONEMES WITH COMPLETE STRICTURE IN ROOT INITIAL AND FINAL POSITIONS

An examination of the distribution of root initial and root final consonants with regard to degree of stricture (0–2) reveals a clear favoring of consonants with complete stricture (0) both in C–I and C–III positions:

First Position C–I

Stricture		Number of Roots	%
0	/p,t–T,k,q,b,d,g,ʔ,m,n/	1477	53.3%
0–1	/ts/	95	3.4%
1–2	/r/	146	5.3%
1	/s,z,S,ħ,ʕ,h/	871	31.4%
2	/l,j,w/	184	6.6%
		2773	100%

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[4] These data present additional problem for various diachronic as well as other reasons related to the distribution of (CCC) roots within words. In particular, the historical occlusive–spirant allophonic alternations in opening (occlusive) and closing (spirant) syllables must be considered. This problem is not purely diachronic either: Schwarzwald (1981) has demonstrated that a confusion exists among many speakers of Hebrew today regarding this particular (and other) alternations. There are other methodological problems regarding the combining of historically distinct consonant phonemes (t–T, k–q) which have merged and have the same active articulators and degrees of stricture and air flow today.

Third Position C–III

Stricture		Number of Roots	%
Ø	/p,t–T,k,q,b,d,g,ʔ,m,n/	1358	49%
Ø–1	/ts/	91	3.3%
1/2	/r/	320	11.5%
1	/s,z,S,ħ,ʕ,h/	768	27.7%
2	/l,j,w/	236	8.5%
		2773	100%

(1) Approximately half of all the initial and final consonants are those with complete stricture (Ø).

(2) Approximately thirty per cent of all the initial and final consonants are those with incomplete stricture of the first degree (1);

(3) Approximately fifteen to twenty per cent of all the initial and final consonants are those with varying degrees of stricture (0–1, 1/2, 2).

It must be noted, however, that these data, are open to the methodological problems we have previously mentioned.

X. THE FAVORING OF STRICTURE OVER ACTIVE ARTICULATORS IN ROOT INITIAL AND FINAL POSITIONS

This favoring of complete constriction may be shown to be even stronger than that of the number of active articulators, particularly if we take the following theoretical and methodological issues into account:

(1) the problem of the historical occlusive–spirant allophonic alternations (/p–f, b–v, k–x/, etc.) (cf. fns. 1,4);

(2) the fact that we are dealing here with roots and not words.

The crux of the problem is, of course, that we cannot always predict which degree of stricture these C–I and C–III phonemes will occur in words. There is, however, one class of Hebrew consonants with consistent complete constriction regardless of phonetic environment: the nasal consonants. The nasal consonants also involve the control of two sets of additional articulators and are therefore generally disfavored. Indeed, we have already demonstrated this general disfavoring in the phonemic system and in the phonotactic distribution of all consonants in C–I and C–III positions.

To test the relative strengths of the number of active articulators and complete stricture, we examined the distribution of the voiceless–voiced–nasal labial and apical triads (/p–b–m/, /t–d–n/) in C–I and C–III positions and found:

	C–I		C–III	
	Lip	Apex	Lip	Apex
Ø	p – 166	t + T–221	p –141	t + T–172
(L) + 1	b – 127	d – 103	b –137	d – 144
(V) + 2	m – 152	n – 167	m–177	n – 228

(1) The nasal consonants (+2) with consistent complete stricture are favored over the voiced consonants (+1) with variable stricture in both root initial and root final positions;

(2) The nasal consonants (+2) are the most favored in the voiceless (Ø), voiced (+1), nasal (+2) triad in root final position (where there may be a general tendency for root final consonants to appear in their spirantized form with incomplete stricture).

	C–I	C–III
most favored Ø	– 387 (p,t+T)	V (+2) – 405 (m,n)
less favored V (+2)	– 319 (m,n)	Ø – 313 (p,t+T)
least favored L (+1)	– 230 (b,d)	L (+1) – 281 (b.d)

This preference for complete stricture is also found in the consistent favoring of apical stops (t+T–d) over apical fricatives (s–z) in C–I and C–III positions:

	C–I	C–III
Ø Stricture	t–T – 221	t–T – 172
	d – 103	d – 144
	324	316
1 Stricture	s – 144	s – 105
	z – 77	z – 61
	221	166

This stronger preference for complete stricture in C–I and C–III positions is worthy of further study in relation to the diachronic development of the synergetic connection between the human and communication factors.

XI. DISFAVORING OF THE SAME ARTICULATORS IN ADJACENT PHONETIC ENVIRONMENTS

Previous research has also shown that there is a significant avoidance of consonants made by the same active articulators in word initial and final positions for English and Italian monosyllables. An examination of the Hebrew (CCC) root system, reveals a similar avoidance of the use of the same active articulators in all root positions:

Distribution of Consonants According to Active Articulators
in the (CCC) Root System

Articulator	Phoneme	C–I	C–II	C–III
	p	166	3	17
Lip	b	127	2	9
	m	152	5	7

	t	144	25	78
	T	77	43	35
	d	103	23	36
	n	167	52	72
Apex	r	146	41	55
	l	82	11	39
	ts	95	34	26
	s	144	57	54
	z	77	25	31
A–Dorsum	S	265	7	5
	j	92	7	6
P–Dorsum	k	110	1	2
	g	121	0	3
Lip + P–Dorsum	q	139	11	2
	w	10	0	1
Pharynx	ħ	175	0	1
	ʕ	159	1	4
Glottis	ʔ	171	5	14
	h	51	0	10
		2773	353	507
% of C = C–I		100%	12%	18%

(1) The use of the same active articulators is consistently disfavored in both C–1 + C–II and C–I + C–III positions, with a stronger disfavoring for the more adjacent C–I + C–II position. The number of consonants made by the same articulators in CCC I + II positions is 353 (12%) versus C–I + III 507 (18%) of C–1 2773 consonants).[5]

(2) We heve already shown a consistent disfavoring in the use of additional sets of articulators for consonants of the (CCC) root system according to the tri–dimensional hierarchy of voiceless (Ø), voicing (+1), nasals (+2) in general. This disfavoring also exists in those consonants made the same set of articulators within the (CCC) root system:

				C–I		C–II		C–III	
(a)	(Ø)	(voiceless)	=	1537	(55.4%)	186	(53%)	244	(48%),
(b)	(+1)	(voiced)	=	917	(33.1%)	110	(31%)	184	(36%)
(c)	(+2)	(nasal)	=	319	(11.5%)	57	(16%)	79	(16%)
				2773	100%	353	100%	507	100%

These consistent favorings and disfavorings throughout the (CCC) root system may be attributed to the great difficulty of learning to control the same set of articulators in close proximity. The more difficult it is to control the same set of musculature within limited and restricted space and time, the less frequent the use of the same set of active articulators, the more proximate the environment, the greater the disfavoring. These data support the previous research done for English and Italian.

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[5] The use of the same active articulators is disfavored for all consonants in the C–I + C–II and C–I + C–III positions, but only for 16 out of 22 (73%) of consonants in the C–II + C–III positions. Most of these "exceptional" consonants are those which already have been discussed /T, ts, S, q/.

XII. DISFAVORING OF THE SAME PHONEME IN ADJACENT PHONETIC ENVIRONMENTS

Previous research has shown that this disfavoring of the use of the same set of active articulators is even greater in its most extreme case: the specific avoidance of the same phoneme in adjacent phonetic environments. An examination of the Hebrew (CCC) root system reveals the following distribution:

Repetition of the Same Phoneme in the (CCC) Root System

Articulator	Phoneme	C–I = C–II	C–I = C–III	C–II = C–III
Lip	p	1	3	9
	b	1	1	14
	m	2	3	10
Apex	t	0	8	10
	T	0	2	5
	d	1	0	12
	n	1	6	12
	r	0	2	11
	l	1	1	14
	ts	0	2	5
	s	0	4	7
	z	0	2	6
A–Dorsum	S	2	5	7
	j	0	0	0
P–Dorsum	k	1	2	1
	g	0	1	4
Lip + P–Dorsum	q	0	1	5
	w	0	0	0
Pharynx	h	0	0	6
	ʕ	1	4	2
Glottis	ʔ	0	1	0
	h	0	9	7
		11	57	147

%OF C–I = C–II/C–III, C–II = C–III: C–I (2773), C–II (353), C–III (507)

	C–I (2773)	C–II (353)	C–III (507)
C–I = C–II/C–III	0.4%	2%	5%
C–II = C–III	3%	1%	29%

(1) This general disfavoring of the same sets of active articulators is even greater in its most extreme case: the specific avoidance of the same phoneme in all CCC position.

The nine repeated phonemes in both CCC I + II positions appear 11 times (0.4%) of C–I 2773, (3%) of C–II 353. The 18 repeated phonemes in CCC I = III positions appear 57 times (2%) of C–I 2773, 11% of C–III 507. This disfavoring is not as strong in C–II + C–III positions where there are 147 examples of 19 repeated phonemes (5% of C–I 2773, and 29% of C–III 507).

(2) The disfavoring of additional sets of active articulators in the tri–dimensional hierarchy holds for the same phonemes in C–I = C–III positions and for almost all the voiced–voiceless oppositions as well.[6]

(Of the 57 instances of repeated phonemes in C–I and C–III positions 37 (65%) are (0) voiceless, 11 (19%) are (+1) voiced and 9 (16%) are (+2) nasals.)

(3) The disfavoring of additional sets of active articulators does not hold for the same phonemes in C–II medial positions in general, but basically holds for the voiced–voiceless oppositions.

(Of the 11 instances of repeated phonemes in C–I + C–II positions, 4 (36.4%) are both (0) (voicesless and (+1) voiced and 3 (27.2%) are nasals; the voiced–voiceless opposition only holds for the k–g pair).

(Of the 147 repeated phonemes in C–II + C–III positions, there are 62 (42.2%) (0) voiceless, 63 (42.9%) (+1) voiced, and 22 (14.9%) nasals; the voice–voiceless opposition is almost complete).[7]

			C–I = C–III	C–I = C–II	C–I = C–III
(a)	(0)	=	37 (65%)	4 (36.4%)	62 (42.2%)
(b)	(+1)	=	11 (19%)	4 (36.4%)	63 (42.9%)
(c)	(+2)	=	9 (16%)	3 (27.2%)	22 (14.9%)
			57 100%	**11 100%**	**147 100%**

The same reason accounts for the observed disfavoring of the repetition of the same phoneme (most consistently in C–I and C–III positions). If it is difficult to control the same active articulators in adjacent environments, it is even more difficult to do so in the extreme case of repeating the very same phoneme. These data also support the previous research done for English and Italian.

XIII. THE FAVORING OF APICAL CONSONANTS

A skewing of the number of consonants produced by each of the different active articulators may also be observed. Indeed, both the previously cited research (as well as a cursory glance at the IPA and other phonetic charts) show a strong favoring for those consonants produced by the apex. An examination of the consonant system of Hebrew reveals that the apex controls 40% or more than twice to four times as many consonants as any other active articulator:

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[6] The voice–voiceless distinction holds for all the pairs /p–3 vs b–1; t + T–10 vs. d–0; s–4 vs. z–2; S–5 vs j–0; k + q–3 vs. g–1/ , save for the pharyngeals /ħ–0; ʕ–4/. The pharyngeal consonants in general and determining the exact manner of articulation for "*ayin*" are well–known problems which will not be dealt with here.

[7] The data for the voiced–voiceless opposition are: /t + T–15 vs d–12; s–7 vs z–6; k + q–6 vs. g–4; ħ–6 vs. ʕ–2/, except for the labials /p–9 vs b–14/.

Articulator	Number of Consonants	%
Lip	3	14%
Apex	9	41%
A–Dorsum	2	9%
P–Dorsum	4	18%
Pharynx	2	9%
Glottis	2	9%
	22	100%

An examination of the relationship between (a) the active articulators, (b) the number of phonemes per articulator, and (c) the number and percentage of (CCC) roots per articulator in C–I position reveals:

Articulator	Phonemes	Roots	%
Lip	3	445	16.1%
Apex	9	1035	37.3%
A–Dorsum	3	357	12.9%
P–Dorsum	2	231	8.3%
(L + V) + P–Dorsum	2	149	5.4%
Pharynx	2	334	12.0%
Glottis	2	222	8.0%
	22 phonemes	2773 roots	100%

The data for C–I position indicate that consonants produced by the Apex are favored and account for over 37% of the roots followed by the Lip (16%), the P–Dorsum (14%), the A–Dorsum (13%), The Pharynx (12%) and Glottis (8%).

An examination of the relationship between (a) the active articulators, (b) the number of phonemes par articulator, and (c) the number and percentage of (CCC) roots made by the same articulator in C–II position reveals:

Articulator	Phonemes	Roots	%
Lip	3	10	3%
Apex	9	311	88%
A–Dorsum	3	14	4%
P–Dorsum	2	1	0.3%
(L + V) + P–Dorsum	2	11	3%
Pharynx	2	1	0.3%
Glottis	2	5	1.4%
	22 phonemes	353 roots	100%

The data for C–II position indicate that consonants produced by the Apex are even more clearly favored and account for 88% of the roots followed by the A–Dorsum (4%), the Lip and P–Dorsum (3%), the Glottis (1.4%) and the Pharynx (0.3%).

An examination of the relationship between (a) the active articulators, (b) the number of phonemes per articulator, and (c) the number and percentage of (CCC) roots made by the same articulator in C–III position reveals:

Articulator	Phonemes	Roots	%
Lip	3	33	6.5%
Apex	9	426	84%
A–Dorsum	3	11	2.2%
P–Dorsum	2	5	1%
(L+ V) + P–Dorsum	2	3	0.6%
Pharynx	2	5	1%
Glottis	2	24	4.7%
	22 phonemes	507 roots	100%

The data for C–III position indicate that consonants produced by the Apex are also more clearly favored and account for 84% of the roots followed by the Lip (6.5%), the Glottis (4.7%), the A–Dorsum (2.2%), the P–Dorsum (1.6%), and the Pharynx (1%)

These data indicate that the apex – the most adroit and easily–controlled of the active articulators – is the most highly favored articulator. In other words, that articulator which is the easiest one to learn to control, is the one which is the most exploited by speakers of the language.

An examination of the distribution of the repeated phonemes in the (CCC) root system reveals, not unsurprisingly, a similar favoring of apical consonants. There was, however, a slight favoring for the labial consonants in initial C–I = C–II position:

	I=II	I = III	II = III
	Roots – %	Roots – %	Roots – %
Lip	4 – 36.4%	7 – 12.3%	33 – 22.4%
Apex	3 – 27.2%	27 – 47.4%	82 – 55.8%
A–Dorsum	2 – 18.2%	5 – 8.8%	7 – 4.8%
P–Dorsum	1 – 9.1%	4 – 7 %	10 – 6.8%
Pharynx	1 – 9.1%	4 – 7 %	8 – 5.4%
Glottis	0	10 – 17.5%	7 – 4.8%
	11 – 100%	57 – 100%	147 – 100%

This preference for labials in root initial position was also found for word initial position both for English and Italian monosyllables as well. Labials, like the saying goes about children, "should be seen and not (only) heard".

Therefore, a tendency for the favoring of visible phonemes in initial position – precisely where the largest number of clues are necessary for effective communication – should not be too surprising when we take the synergetic connection between the communication and human factors into account. Indeed, a comparison of the labial stops with their simple apical and P–Dorsal counterparts reveals a similar favoring for more clearly visible sounds in C–I position:

Lip	Apex	P–Dorsum
p 166	t 144	k 110
b 127	d 103	g 121

This "visibility factor" in root initial position is, of course, susceptible to various diachronic and methodological considerations as well.[8]

XIV. SUMMARY AND CONCLUSION

In this paper, we have extended previous research in the combinatory phonology of English and Italian to the Hebrew (CCC) root system, following a specific approach to phonology inspired by the definition of language as a system of systems used by human beings to communicate. In short, we have attempted to statistically examine the synergetic connection between the human and communication factors of language as they are reflected in the phonotactics of the Hebrew (CCC) root system.

Theoretically and methodologically this view of language and phonology has been influenced by:

(1) the Saussurian notion of system in general and the need to combine both articulatory and auditory features in the study of sound systems;

(2) further developed within the teleogical functional framework of the Prague School and distinctive feature theory;

(3) and continued by Martinet who recognized the role of the human factor in communication, thus making the notion of "economy" a crucial element for phonological explanation.

Throughout this paper we have observed a direct connection between the effort invested by speakers in learning to control the active articulators involved in the production of consonants and the observed favorings and disfavorings of these consonants. This has been true both for the distribution of consonants within the Hebrew phonemic system as well as their phonotactic distribution within the (CCC) root system.

In particular, we discovered certain general tendencies which showed:

(1) the disfavoring of additional articulators in the phonemic system of Hebrew in general, in C–I and C–III root positions in particular, as well as in the phonemic oppositions of individual active articulators;

(2) the favoring for phonemes with complete stricture in C–I and C–III root positions as well the relationship between stricture and number of active articulators;

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[8] The nasals as "temporally extended stops" may even be more visible than their oral counterparts, as may historically ejective consonants which were not included here.

(3) the avoidance of the use of the same articulators and the repetition of the same phoneme in all (CCC) root positions;

(4) The general favoring of consonants made by the apex in all the above environments with an additional favoring of visible phonemes in C–I and CI = CII positions.

We have not claimed to solve all the problems related to the Hebrew (CCC) root system. We merely have presented a preliminary set of basic criteria which may serve as a first step to better understand some of the most fundamental phenomena related to the combinatory phonology of Hebrew which both supported analyses of the combinatory phonology of English and Italian and may also serve as a basis for a methodology for further work in contrastive phonotactics.

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ENGLISH/RUSSIAN NOMINAL SENTENCES–EXPRESSIVES: CONTRASTIVE ANALYSIS

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Expressives as a type of speech acts in Searle's classification include only thanks, congratulations and several other types. Many linguists, however, are of the opinion that this notion is much wider and includes all speech acts expressing the speaker's emotional attitude towards some situation, fact or person.

The definition of structural and semantic characteristics of speech acts belonging to this class presents some difficulty: practically any type of structural–semantic petterns can be used in the pragmatic function of an expressive, the extra–linguistic situation being the factor entirely determining the speaker's intention. And still there are certain syntactic patterns typical of expressing emotional attitude. Among those patterns nominal sentences (NS) occupy a special place. Both in English and Russian a NS is a unit perfectly suitable for the above mentioned purpose of communication under specific speech conditions.

As is known an illocutionary act of a speaker is, as a rule, followed by an allocutionary act which means "the selection by the speaker of those linguistic devices which he thinks optimally serve the purpose of eliciting from the hearer a positive reaction" (Haverkate 1984:11). Thus, the successfulness of a speech act depends mostly on the allocutionary act.

When speaking about expressives we can say that the standard syntactic pattern "It is a fine day" may fail to perform this pragmatic function as it lacks emotion, while the sentence "What a fine day!" would be more suitable for this purpose. A NS, of course, is only one of the patterns used for expressing emotions.

The aim of this analysis is to compare the structural–semantic characteristics of NS–expressives in English and in Russian. Another important problem to be solved is to find out in which of the two languages a speaker performing an allocutionary act chooses a NS as a means of expressing his intention more often.

First, it should be mentioned that the structural pattern of an exclamatory sentence is the most common in both languages. But both in English and in Russian one can also find NS–expressives having the structural pattern of a question:

"What have I got to learn about you, Miss Jordache?
"Me?" a forced little laugh was surprised out of her (Shaw).

"Ты? Какими судьбами к нам?"

and a vocative:

"So, did you murder her?"
"Mr. Poirot!" he cried out indignatly (Christie).

– Вы как раз так и бурите. Наставляете звено за звеном и последовательно бурите. А мы ...
– Диалектически? Скачкообразно?
– *Натан Михайлович!* Запрещенный прием! (Дудинцев).

Among exclamatory NS–expressives both in English and in Russian the most typical patterns are: (Adj) N!, What (Adj)N!, N of N!:

"Been ashore?" she asked.
"Yes, *a lovaly night. A real honeymoon night*" (Christie).
"What a dreadful day!" (Maugham).
"That would be like the Queen in your Alice in Wonderland, "Off with her head"." "Of course. *The divine right of monarchy!*" (Christie).

"Какая мрачная комната!" (Беляев).
"Вот тебе все и объяснилось" ... "Вот так история!" (Булгаков).
"Необыкновенная тишина этой ночи!" (Фадеев).

But though similar, these structures are not identical in English and in Russian. The Russian NS of the type are more varied. They can include particles, interjections, affixes of subjective appraisal, other means expressing different shades of emotions, while English NS usually have none. Compare:

Вот так день (денек, денечек)!
Ну и день (денек, денечек)!
What a day! – Что за день (денек, денечек)!
Какой день (денек, денечек)!
День (денек, денечек)-то!

On the other hand, a number of English NS–Expressives are of idimatic patterns, with reinterpreted pronouns and conjunctions and can hardly have any analogous patterns in Russian. Here belong such patterns as *Some N!, This (that, these, those, the) N!, You and your N!* When devoid of demonstrative meaning pronouns *this, that, these, those* and the definite article in English have a certain negative connotation. The same is true of the pattern *You and your N!*, while the pattern *Some N!* can express both positive and negative emotions:

"Oh man, that noise!" (Hailey).
"You and your uppish Mr. Grant!" (Christie).
"Satisfied with your pupil?" "Some pupil!" he said smiling (Shaw).

Such NS in translation are rendered by patterns of other structural types – verbal sentences that may include idiomatic structures etc. Compare:

"You and your legs!" (Maugham).

"Идите вы с вашими ногами!" (Моэм).

So, while the Russian language possesses a varied choice of means modifying the character of emotions expressed by a NS, English has a wider range of structural–semantic patterns of NS–expressives.

The study of a speaker's allocutionary act gives sufficient grounds to suggest that the number of English NS–expressives is much greater. The results of the quantitative analysis are given below:

	The number of NS–expressives per 100 pages			
English	28	23	19	20
Russian	21	18	14	17

Each portion of 100 pages has been taken from a book of modern English writers – A. Christie, W.S. Maugham, I. Shaw, D. Fransis and respective translation into Russian.

This can be accounted for by the fact that the Russian language possesses a wider choice of expressive patterns besides NS. Also, the case system of Russian which is more complicated than that of English limits the number of NS. The two languages belonging to different types, their systems have different arsenals of expressivity.

The contrastive study of NS in English and in Russian leads us to the conclusion that a NS performing the pragmatic function of an expressive is used in English more often than in Russian. In both language a NS is one of the typical means of expressing emotional attitude. The English language has a larger number of structural–semantic patterns of NS, while the Russian language has a number of different variants of the few structural–semantic patterns of NS it possesses.

All this should be taken into account in language teaching as well as in the course of theory and practice of translation.

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A WORKING FRAMEWORK FOR A PEDAGOGICAL CONTRASTIVE GRAMMAR OF PERSIAN AND ENGLISH: FROM SENTENCE TO DISCOURSE[1]

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This paper aims at describing and justifying the framework used by the writer in the writing of a pedagogical contrastive grammar of Persian and English in its broader sense with further elaboration on some aspects of the problems of Persian learners of English. This analytic model is meant to produce a systematic comparison of salient aspects of grammars of English and Persian which indicates the psycholinguistic implication of structural and textual differences and similarities between the two languages for Persian learners of English and to some extent for English speaking learners of Persian. The model combines theoretical and empirical considerations. It is directed towards practical results and meant to be comprehensible for the average reader.

This writer believes, however, that pedagogical contrastive grammars should start virtually from scratch, taking little for granted. They should be written for intermediate students who know some of the basic facts of the grammar of the target language. The purpose of this type of grammar, in other words, is as follows:

1. to provide information about the facts of the target language.
2. to illustrate similarities and differences between the two linguistic systems involved.
3. to achieve further elaboration on a working framework for contrasting languages.
4. to predict and specify some of the major learning difficulties of the learners of the target language, and to facilitate the teaching, learning and translating of the target language. And finally,
5. to achieve the desired elaboration on the format and the construction of pedagogical contrastive grammar.

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[1] An earlier version of this paper was presented at the Language Acquisition Research Symposium (LARS), held at the University of Utrecht, August 1988. I am grateful for the comments and suggestions made by the participants on that occasion.

Aarts, T. and Wekker, H. along with many others maintain that "...a pedagogical contrastive grammar of two languages need not to be based on a particular linguistic theory" (1988:5) or "This type of contrastive grammar can be didactically adequate without utilizing a particular theoretical framework, since all it is supposed to do is to reveal the differences and similarities between two grammars, to present the linguistic facts, rather than to offer explanations for why these facts are as they are." (1988:9).

Aarts and Wekker subscribe to the same argument in their previous article (1982:25–43) on the same subject. This, however, leaves the practitioners in darkness with no specific guidelines how to go about in writing a contrastive grammar. One wouldn't know about the nature of this ecclecticism.

We need, therefore, to construct a framework before we embark on our task. This framework, it is suggested, could be a single–theory based and as the writer continues writing the text, he can relax, adjust or simplify the theory and incorporate insights from other theories and his practical experiences when felt necessary. This is what the pedagogical grammar of English and Persian tries to accomplish:

The model underlying the construction of this grammar consists of three distinct stages. They are:

1) Semanto–syntactic, 2) Sociopragmatic and 3) Discourse

The proposed theoretical model is something like what appears on the attached diagram. For each stage a specific Tertium Comparationis (TC) is assigned.[2] Sentential semantic identity base, functional equivalence and translation or statistical equivalence will be taken as TCs for the above three stages respectively.

At each stage, particularly at the first stage, a number of platforms can be established. One can easily conceive of three platforms for the first stage.

They can be:

1) sentential semantic base, 2) deep structure, and 3) basic sentence pattern.

In fact, the inclusion of the third platform – i.e. basic sentence pattern is the writer's first attempt to make the model suitable for pedagogical and applied purposes.

In executing theoretical CA at the first stage, sentential semantic base will be connected to two aspect–type deep structures of the two languages to be compared via grafting transformations – something like what is proposed by van Buren (1974:279–312). The two deep structures are also transformed to surface structures by the sequential applications of regular transformations. CA can be executed at each point of the derivation or at the points where specific platforms are considered.

Depending upon the objectives of the analyzer or the writer and/or the specific level which the analysis embraces, one can start performing his CA from a specific platform. The second adjustment of the theoretical framework for pedagogical purposes comes with the choice of a suitable platform. The platform chosen for the start by the writer is the platform of *Basic Sentence Patterns*.

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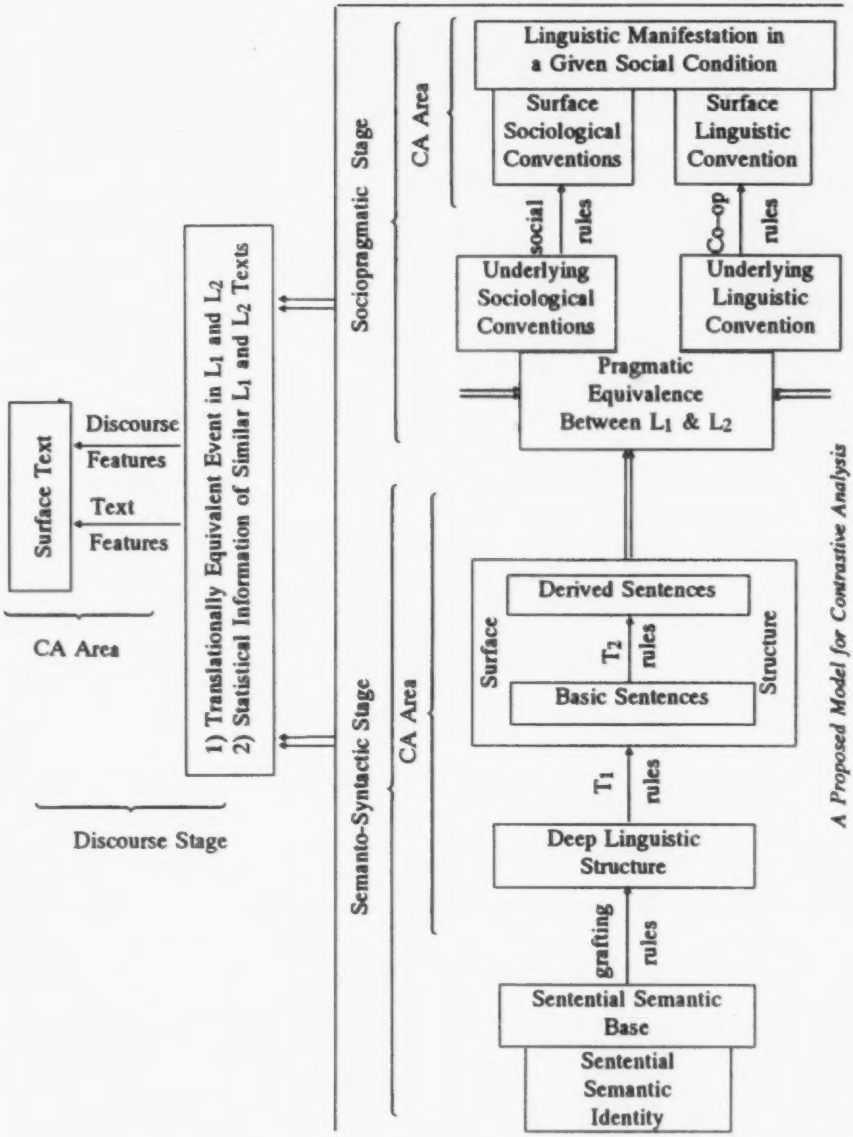
[2] An earlier version of this model was presented in a paper entitled "In search of a practical model for contrastive analysis of English and Persian" at the annual conference of the Association of Professors of English in Iran, held in Tehran (March 29–31, 1987).


Surface Text
Discourse Features
Text Features
CA Area
1) Translationally Equivalent Event in L_1 and L_2
2) Statistical Information of Similar L_1 and L_2 Texts
Discourse Stage
Sociopragmatic Stage
Semanto-Syntactic Stage
CA Area
CA Area
Linguistic Manifestation in a Given Social Condition
Surface Sociological Conventions
Surface Linguistic Convention
social
rules
Co-op
rules
Underlying Sociological Conventions
Underlying Linguistic Convention
Pragmatic Equivalence Between L_1 & L_2
Derived Sentences
T_2
rules
Surface
Structure
Basic Sentences
T_1
rules
Deep Linguistic Structure
grafting
rules
Sentential Semantic Base
Sentential Semantic Identity

A Proposed Model for Contrastive Analysis

Three steps are involved in the first stage. At the initial step, the structures of a limited number of basic sentence patterns (around 80) are formulated and contrasted. Case structures, types of predicators, the behavior of the given expressions in contact situations and finally semantic considerations are the determining factors in the formulation of basic sentence patterns. The second step is basically concerned with the effects of the application of rules (such as: sentence expansion, topicalization, subj–verb agreement, negation, question, focus, scrambling, subordination, conjunction, etc.). The third step covers sentence constituents, including nominalization, adjectivalization and adverbialization, etc.

In constructing basic sentence patterns, the writer has followed J. Fisiak, M. Lipińska–Grzegorek and T. Zabrocki (1978) with some modifications, of course. Fisiak, et al. define basic sentence pattern as "A basic sentence pattern is a sentence pattern such that: (1) the syntactic function of the subject and the verb in personal form is never repeated twice in the same pattern; (2) lexical realizations of syntactic functions occurring within this sentence pattern are all obligatorily connoted by the lexical realization of the verb constituent or the predicate," (1978:41).

According to the above definition, sentences with *that* – complementation are not considered basic, but sentences with *for–to* or *Poss–ing* are. By modifying the above definition, namely by deleting the phrase *in personal form* from the definition, sentences including *for–to* and *poss–ing* complementations are also excluded. Thus sentences *I want to go* and *I saw him running* are not considered basic any more.

In Fisiak, et al. (1978), basic sentence patterns are determined on the basis of their syntactic meaning and predicator valence. This writer, however, has incorporated another consideration in determining the types and numbers of basic sentence patterns. For example, the two sentences: (1) *the door is open* and (2) *Mehdi is intelligent,* grouped in a simple pattern by Fisiak, et al., are considered to be belonging to two different patterns by this writer. Because sentence (2) can have at least three almost equivalent renderings in Persian, such as: (a) *mehdi baahush ?ast* "Mehdi intelligent is" (b) *mehdi hush–e ziyaadi daarad.* "Mehdi much intelligence has" and (c) *hush–e mehdi ziyaad? ast* "intelligence of Mehdi much is". Each of the above Persian expressions belong to a different pattern.

Sentence (1), however, has only a single rendering in Persian, i.e. *dar baaz ?ast* "door open is." The number of contrasted basic sentence patterns, based on the above considerations, amounts to about 80.

By consulting A.S. Hornby's *Oxford advanced learner's dictionary of current English* (1987), English verbs, based on the kinds of object–NP–complements they can take, are primarily grouped under seven types as in the following:

1. verbs which can take only *that*–complementation.
2. verbs which can take only *for–to*–complementation.
3. verbs which can take only *Poss–ing*–complementation.
4. verbs which can take $\left\{\begin{matrix}\textit{that}\\ \textit{Poss–ing}\end{matrix}\right\}$ complementation.
5. verbs which can take $\left\{\begin{matrix}\textit{that}\\ \textit{for–to}\end{matrix}\right\}$ complementation.
6. verbs which can take $\left\{\begin{matrix}\textit{for–to}\\ \textit{Poss–ing}\end{matrix}\right\}$ complementation

7. verbs which can take $\left\{\begin{array}{l} \textit{that} \\ \textit{for–to} \\ \textit{Poss–ing} \end{array}\right\}$ complementation.

Types 4, 5 and 6 each can be further categorized into two sub–types, depending whether there is a change in meaning between the two structures or not.

The six sub–types resulted from this categorization can be visualized as in the following:

4a. *that*–comp = *Poss–ing*–comp
4b. *that*–comp#*Poss–ing*–comp
5a. *that*–comp = *for–to*–comp
5b. *that*–comp#*for–to*–comp
6a. *Poss–ing*–comp = *for–to*–comp
6b. *Poss–ing*–comp#*for–to*–comp
(= indicates equivalence and # difference in meaning)

In the same way, four sub–types can be conceived for item 7. They are as follows:

7a. *that*–comp = *for–to*–comp = *Poss–ing*–comp
7b. *that*–comp = *for–to*–comp#*Poss–ing*–comp
7c. *that*–comp = *Poss–ing*–comp#*for–to*–comp
7d. *for–to*–comp = *Poss–ing*–comp#*that*–comp

Each of the above thirteen categories can have one, two or three of the following Persian rendering types:

(1) *ke*–complementation structure (equivalent to English *that*–complementation),
(2) infinitive nominalized structure, and (3) derived nominalized structure.

In theory, then, we can expect to have 13x13 = 169 subgroups of objective–NP–complementation in the process of contrasting English and Persian. In practice, however, all these potentialities are not materialized.

The description of English used at the semanto–grammatical stage is largely based on Celce–Murcia and Larsen–Freeman's *The Grammar Book: An ESL/EFL teacher course* (1983) and Quirk, et al's *A comprehensive grammar of English language* (1985).

Different stage one outputs may unify themselves in a single pragmatic function or a single output could perform different functions. Pragmatic equivalences at this level can be demonstrated through universal conversational postulates and politeness principles and/or illocutionary functions in the context of the given social conventions.

Various theoretical frameworks have been proposed under the umbrella of contrastive pragmatics. In the theoretical framework presented above, sociopragmatic stage involves the study of the forms and the functions of language in the given social settings. To achieve the objectives of the analysis two kinds of categories have to be contrasted: one sociological and the other linguistic. This two sub–sets of TCs (i.e. social and linguistic) are required to account for a single pragmatic function.

The linguistic TC employed to contrast the functions in the two languages could be the Grice's Cooperative Principles (1975) and Politeness Maxims proposed by scholars such as Lakoff (1974) and Leech (1983). Although these maxims and rules are universally applicable to any language, the principles applied to carry out a particular function vary from language to language. Thus the linguistic rules observed in producing a given function in the two languages can be elaborated. This, of course, serves as the basis for the comparison of the surface conventions of the two languages.

With regard to social conventions, as stated by Grimshaw (1973), a set of underlying universal principles of social interaction are assumed to exist. These underlying social conventions of different functions can be defined and the way they differ at the surface level can be specified.

Within this theoretical framework by which the surface (endemic) social and linguistic conventions of the two languages are derived from a set of underlying (epidemic) social and linguistic conventions an actual CA of pragmatic functions in the two languages can be carried out.

In a pedagogical grammar of this kind, however, a number of important notions (such as *possibility, probability, permission, obligation*...etc) and a number of common pragmatic and illocutionary functions (such as *making offers, polite requests, warnings, orders, invitations* and other important indirect speeches) will be studied. The grammatical surface reflexes of such notions and functions in the two languages will receive contrastive treatment. W.R. Lee's *A study dictionary of social English* (1983) has been used as a source book for English.

The third section deals with the organisation of discourse and embraces a varied and vast area of investigation. Varied elements are responsible for the unification of different utterances into a discourse unit. Relational structures (such as additions and support relations), thematic relations, unmarked vs marked prominence, information structures, redundancy, expectancy chains, schematic structures, topic elaboration processes, cohesive devices, etc. are all discoursal and textual features which provide the continuity between one part of the text with the other; that is, they are elements of texture.

These discoursal features are, of course, unevenly distributed in different kinds of discourse or genres within the same language. Different languages also utilize different kinds of discourse features to organise a text of a particular genre. Thus CA texts can be performed by contrasting the types and the number of discourse features and cohesive devices responsible for the coherence of the texts in question. The sameness of the two texts to be compared will be established through translation equivalence or the statistical information available about the elements of texture in the two texts.

In English–Persian Contrastive Grammar, however, some of the important linguistic reflexes of texture in the two languages are described.

Matters such as focus and theme, emphasis, topicalization, cleft constructions, sequences of tenses, ellipsis, reference, substitution, discourse connectors, lexical cohesion, etc. are explained. How these processes are linguistically and discoursally actualized in the two languages to achieve textual and discoursal continuity for communication purposes are described and contrasted. Halliday and Hasan's *Cohesion in English* (1976) and Quirk, et al's *A Comprehensive Grammar of the English Language* (1985) are the two basic reference texts heavily utilized in writing this section. The description of Persian in all parts of the text is basically that of my own.

All through the text interlanguage considerations and pedagogical allusions are elaborated by providing notes, discussions and exercises at the end of each chapter.

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REVIEW ARTICLE

PERSPECTIVES ON VAN VOORST'S THEORY OF EVENT STRUCTURE

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Van Voorst, J. *Event structure.* Amsterdam: John Benjamins, 1988, 181pp.

The author of *Event structure*, Jan van Voorst, proposes an approach to linguistic semantics that constitutes a significant departure from conventional ways of dealing with phenomena of language. The aim of this review is to evaluate how well he succeeds in presenting and justifying his theory.

My remarks will be structured as follows. In order to provide the requisite background for the critical discussion to follow. I believe it necessary to describe, in considerable detail at times, the various proposals made by von Voorst. In Section I, therefore, I present an overview of the book's contents, chapter by chapter. Section II, the critical discussion, consists of three parts. The first of these deals with considerations of style and form. In the second I turn to a discussion of questions of substance, pointing out problems with ideas of the theory and with data used to support it. The third part offers a few comments on theoretical issues more general in scope, and concludes the review with an overall assessment of the book.

SECTION I: OVERVIEW OF THE BOOK'S CONTENTS

In the introductory chapter and chapter I, the author declares his intention to present a theory in natural language semantics that is relevant to the functioning of rules in a grammar. Tracing the historical predecessors of this kind of approach, e.g. Hjelmslev (1935) and Jakobson (1936), he concludes that it is "hard to find studies that tie in semantic research with grammatical phenomena or vice–versa." (p.2)

The author then goes on describe inadequacies of certain grammatical theories, and to propose his own approach. In Lexical Functional Grammar, verbs are specified in the lexicon according to different possible syntactic environments: lexical roles relate these environments to each other. (cf. Bresnan 1982) But the weakness in LFG, according to van Voorst, is that "no attempt is made to uncover semantic generalizations in this part of the lexicon. There is no explanation for why the verb in (1) may occur in other grammatical contexts, such as (2) and (3).'(p.2) (I use the author's numbering for examples taken directly from the book; other example sentences are numbered beginning with 101)

(1) Fred reads Russian novels.
(2) These novels were read by Fred.
(3) Fred reads easily. (p. 2)

Van Voorst notes similar inadequacies in the theoretical machinery of Relational Grammar, as it is presented in Perlmutter (1978), and in Case Grammar, as developed in Fillmore (1968). He proposes to show that correlations discerned in Relational Grammar between "rules of grammar, semantics and deep structure"(p.3) are based on wrong assumptions, and that a case role theory does not easily allow for the possibility of falsification, since case roles can be added at will, thus allowing for easy incorporation of counterexamples. Van Voorst says that his use of aspectual notions is to be preferred in that they constitute a limited number of primitives, not freely expandable.

Although he faults "purely semantic" studies for their lack of reference to rules of grammar, he will make intensive use of concepts contained in some of them, in particular those of Vendler (1967) and Dowty (1979).

The model of grammar he proposes to use as a framework in which to situate his subset of grammar is that of Jackendoff (1983), which van Voorst claims "can be considered an addition to the Government and Binding model of Chomsky" (1981:6). Within the GB model, van Voorst isolates theta role assignment and case assignment as modules of importance to his theory. The way he proposes to include his own aspectual notions within the Chomskyan model is to assign them as theta roles. Necessarily this would involve replacing the traditional theta roles such as agent, patient, theme, etc. by notions that denote the position of constituents within the structure of an event.

What is the event structure that van Voorst intends to use as the basis for his theory? An event is viewed as being delimited by an entity identifying the beginning of the event and an entity identifying its end. The first entity makes the event originate or helps to actualize it, and the second entity is the "object of termination" Van Voorst diagrams these as follows:

Event
O-------------------O

Object of origin or actualization

Object of termination

The Event Structure Correspondence Rule links the conceptual structure above to deep structure positions in syntax:

Event Structure Correspondence Rule

Event

object of origin (Dutch)

object of termination or actualization (English)

O - - - - - - - - - - - - - - O
subject NP direct object NP

Stative constructions are characterized by the absence of Event Structure.

Chapter 2 reviews Vendler's (1967) event and state semantics, in which four verb classes are distinguished. One of these consists of stative verbs; the three others are activities, accomplishments, and achievements. Accomplishments, unlike activities, have a set terminal point, as in *He drew a circle*. Achievements do not last a period of time, e.g. *He reached the top*. The author provides a number of tests to distinguish the four verb classes, some of these from Lakoff (1965), as well as Vendler (1967). He provides a table of examples of the four verb classes, taken from Dowty (1979):

Accomplishment: paint a picture
Achievement: recognize, find, reach
State: believe, have, desire
Activity: run, walk, drive a car (p.21)

Van Voorst discusses Vendler's and Smith's definitions for states and events, providing some evidence for rejecting the criterion of the applicability of the progressive tense as a test for stative versus event verbs. He adopts a state–event distinction by extrapolating from Vendler's (1967) distinction between facts and events. According to Vendler, events take place; facts do not. Facts are *about* the world but not *in* the world. In his theory of event structure, Van Voorst likens states to facts.

As a background for his definition of event, van Voorst looks at notions proposed in Bennett and Partee (1972) and Freed (1979), which are essentially analyses of events as time segments. Van Voorst's proposal is to consider events as structures related to objects in reality. On this notion, events are delimited by objects in space and not by the beginning or end of a time segment. In connection with this idea, he reviews the notions of predecessors: Wülner (1827), Hjelmslev (1935), and Jacobson (1936). He compares how different AKTIONSARTEN, such as durativity, punctuality, and iterativity, interact with his event structure system, concluding that, in general, event structure does not tell much about the aktionsart of a verb. One nice part of this chapter is his explanation of why mass terms and indefinite plurals cannot occur as objects of termination, i.e. in an accomplishment construction:

> Different descriptions of entities in reality influence the possibility to interpret them as objects of termination. When we say that someone ate sugar or an indefinite number of candies, nothing is expressed about the exact size of the quantity eaten. As such, these sentences do not indicate how to determine whether the event they express is finished. To do this, the entity denoted by the direct object must have undergone an identifiable change of state. A mass term and an indefinite plural however do not provide the information that makes it possible to identify this change of state in reality. This is so, because they do not denote entities that are delimited in space. (p.29)

Van Voorst begins chapter 3, The Semantics of the Subject, by showing how his theory differs from subject semantics in Fillmore (1968). Fillmore's Subject Hierarchy is as follows: If there is an Agent, it becomes the subject; otherwise, if there is an Instrument, it becomes the subject; otherwise the subject is the object. Van Voorst brings up data that show Fillmore's proposal to be inadequate:

(5) (a) This knife cuts the meat well.
(b) *Did mes snijdt het vlees goed

(6) (a) This knife cuts well.
(b) *Dit mes snijdt goed

(7) (a) *This spoon eats the soup well.
(b) Deze lepel eet de soep lekker. (p.46)

(8) (a) *This spoon eats well.
(b) Deze lepel eet lekker. (p.47)

Fillmore's formulation predicts the grammaticality of (7a). It does not explain the differences between the Dutch and English here. Van Voorst's notion of actualization explains the English data. He then goes on to argue that the grammatical Dutch intransitive data are in fact stative, and thus do not constitute a counterexample to Event Structure.

In order to exclude this Dutch data on the basis of stativity, he develops several lines of argument. First, the Dutch data are part of a larger set of data, since intransitive nonstative verbs can be made stative in a productive way: instruments, locations, and circumstances, as well as objects, may become the subject NP of statives, e.g.

(15) (b) Dit papier schrijft niet lekker
"This is bad paper to write on." (p.49)

In contrast to English, Dutch does not allow adverbs such as *without any effort*, which supposedly refer to "the effort needed to keep an event going", in sentences such as (28):

(28) (a) *Deze sinaasappel pelt zonder enige moeite goed
(b) This orange peels without any trouble (p.52)

Event Structure must therefore be phrased so as to take into account an important difference in subject selection between Dutch and English. Dutch does not allow a subject NP that denotes an entity that actualizes an event but is not the object of origin of it:

(41) (a) 50 dollars will buy you a second-hand car
(b) *Viftig dollar zal (je) een tweedehands auto kopen (p.56)

(44) (a) This lotto ticket can win $5,000
(b) *Dit lot kan $5.000 winnen (p.57)

(47) (a) *De steen brak het raam
(b) The stone broke the window (p.58)

So the event structure notion is that we have objects of actualization for English, and objects of origin for Dutch, where these are realized as subject NP's in transitive constructions.

The chapter concludes with some discussion of other authors' proposals concerning the nature of the middle. There is considerable emphasis on Keyser and Roeper (1984), and Lakoff (1965). Van Voorst concludes that the tests proposed by these authors have many faults.

Chapter IV takes on the issue of unaccusativity. Van Voorst calls intransitives with derived subjects unaccusatives, and those that have nonderived subjects unergative. He provides syntactic and morphological motivation for unaccusativity, discusses arguments for unaccusativity, and uses extensive data on resultative constructions to make some nice distinctions between unaccusativity and unergativity. Among interesting data he uses here to support his contention that constructions with unergative verbs express accomplishment and therefore contain an object of termination in event structure, are examples dealing with restrictions on Dutch participle usage: when unergative verbs are accompanied by the participle *uit* "out" or by a directional PP, they can be used in a participle construction, as follows:

(55) (a) *de gelachen man
the laughed man
(b) de uitgelachen man
the outlaughed man

(56) (a) *de gelopen man
the walked man
(b) de naar Amsterdam gelopen man
the to Amsterdam walked man (p.87)

Van Voorst concludes the chapter by stating that based on arguments of the chapter, the following sentences all have derived subjects, since they contain an object of termination.

(66) (a) The bomb exploded
(b) De bom explodeerde

(67) (a) He ran to the bus station
(b) Hij holde naar het busstation

(68) (a) He read up on sports
(b) Hij is uitgewerk
he is outworked
"He finished working" (p.89)

Again, he uses this data to conclude that neither case role nor thematic role semantics are able to explain the nature of the subject NP in languages like English and Dutch, but Event Structure can. Among other writers, Keyser and Roeper (1984), Bresnan (1982), and Marantz (1981) have argued that the middle or medio–passive in English has a derived subject. Van Voorst's Event Structure Correspondence

Rule, on the other hand, predicts that only a subset of middle subjects is derived, that is, those that can appear in an accomplishment construction.

In the chapter on passivization and reflexivization, van Voorst argues that data from Dutch impersonal passive, and the English and Dutch personal passive, support his notion of Event Structure. According to van Voorst, the Dutch impersonal passive applies only to constructions that contain an object of origin, and that only nonstative nonaccusative constructions have such an object.

In English, pseudo–passivization shows similar phenomena. Van Voorst predicts that pseudo–passives are grammatical when they are based on an intransitive containing an object of actualization, e.g.

(7) (a) They slept often in that waterbed
(b) They looked often at this picture

(8) (a) This waterbed is often slept in
(b) This picture is often looked at (p.97)

And accomplishments, which contain an object of termination, do not give rise to a pseudo–passive:

(9) The children ran suddenly into the room
*This room was suddenly run into (p.98)

Interestingly, pseudo–passive is possible with motion verbs when a locative PP is used instead of a directional PP:

(11) (a) You should not walk on this sidewalk
(12) (a) This sidewalk should not be walked on.(p.98)

The pseudo–passive of (11) above is said to be possible because (11) contains an object of actualization rather than of termination, as in (7) and (8).

Van Voorst then turns to a discussion of English and Dutch personal passives, and shows that the presence of an object of origin or actualization (in English) allows for passive to apply with an intransitive construction. In generalizing that statement to include transitive constructions, he attempts to show that the subject of non–passivizable transitive constructions does not denote an object of origin or actualization. To do so, he uses certain tests of adverbial selectional restrictions to demonstrate that those sentences are in reality stative, thus containing neither object of origin or actualization, since by definition the latter are restricted to a role in events only. Van Voorst takes his analysis of passive to refute Bresnan's (1982) view, as described in the LFG framework, that passive applies according to specifications for that rule on verbs in the lexicon. He likewise maintains that his analysis also works against the idea that the notion of activity is important in the applicability of passive, as was argued in Relational Grammar by Perlmutter (1978).

The chapter ends with a description of how the French reflexive fits in the theory of Event Structure. This section begins with a short review of some other views on the reflexive: Stefanini (1962), Burston (1979), pointing out difficulties with these approaches. Case or thematic roles such as agent and passive do not account for many cases of French reflexivization, e.g. with perception and recipient verbs:

(50) (a) Il a entendu le bruit
"He heard the noise"
(b) Jean-Paul a reçu une lettre de sa mère
"Jean-Paul received a letter from his mother"

(51) (a) Le bruit s'entend si tu mets ton oreille ici
"The noise can be heard if you put your ear here"
(b) Autrefois, les paquets se recevaient au bureau de poste
"Before, parcels were received at the post office" (p.109)

The subjects in (50a–b) can scarcely be construed as agents, nor are the direct objects patients.

Nor can the notions of agent and patient or active and passive accurately characterize reflexives such as those in (52):

(52) (a) La chambre s'est nettoyée en 5 minutes
"The room was cleaned in 5 minutes"
(b) Le reste du vin s'est bu en un clin d'oeil
"The rest of the wine was finished in the blink of an eye" (p.109)

Within the framework of Event Structure, van Voorst analyzes all French reflexive constructions as consisting of an event and its "ultimate reference point", but no object of origin. Some reflexives are seen as containing an object of termination. The notion of ultimate reference point is one he introduces in this chapter with little discussion, instead referring the reader to a section back in chapter 2 that is primarily devoted to the proposals of other writers regarding the nature of events. Here the notion of ultimate reference point is used where there is no apparent object of termination.

In chapter VI, entitled Involvement, van Voorst explores the semantic primitive of "involvement", showing how it predicts such things as unergative intransitive and unaccusative intransitive. By "involvement", he means whether the entities represented by subject and direct object NP's are "fully involved in an event". For example, the entity denoted by the direct object of perception verbs is not involved in the event of perceiving it. In *He saw Peter on the bridge*, the entity *bridge* does nothing that relates to its being seen, it merely is visible to the viewer. Nor is the entity affected by being perceived.

In the case of subject NPs, there are also differences in involvement. In *He broke the vase*, where we have what van Voorst classifies as a causative, *break*, the sentence says little about the subject NP's role in the event. In contrast, in *He ate a carrot*, the role of *he* is clear. Van Voorst formalizes this semantic notion of involvement as follows:

> An NP is marked [+involved] when the meaning of the verb allows clear inferences about the way in which the entity denoted by it is involved; in all other cases the [–involved]-feature is assigned.

Van Voorst's prediction concerning unergative intransitive is that only verbs with the following involvement pattern allow unergative intransitive.

NP	V	NP
+inv	eat drink read	+inv

Thus

(9) (a) He was drinking beer

+inv +inv

(b) He was drinking (p.126)

(12) (a) He felt the wind in his hair

+inv –inv

(b) *He felt (p.127)

(14) (a) The painting dominated the whole room

–inv –inv

(b) *The painting dominated (p.127)

For van Voorst, unaccusative intransitive describes verbs that can change from transitive to intransitive, as in (18–19):

(18) He opened the door
(19) The door opened (p.128)

Others have argued that the possibility of having the kind of alternation in (18–19) above is related to an agent–patient alternation in subject position. Van Voorst maintains that verbs like *open* can work the way they do because they are accusatives (they have an object of termination), not because they have patient subjects. In his feature system, unaccusative intransitive is possible with verbs having the involvement pattern as follows:

NP	V	NP
–inv		+inv

And indeed, the [+inv] V [+inv] pattern does not allow unaccusative intransitivization:

(22) (a) Martha was reading the newspaper
(b) *The newspaper was reading(p.124)

Some of these verbs, such as *open*, may occur in a different involvement pattern, e.g. [+inv] V [+inv]. If used in this way, unaccusative intransitive is not possible:

(24) (a) He opened the bank account
(b) *The bank account opened (p.129)

Likewise, the involvement semantics explains why achievement verbs do not allow an accomplishment reading. Achievement verbs occur with a [–inv] direct object. And Van Voorst's prediction regarding the possibility of unergative and unaccusative intransitive is confirmed here as well, as shown by (30–32):

(30) (c) He reached the top of the hill
(31) (c) *He reached
(32) (c) *The top of the hill reached (p.130)

There follows some interesting discussion of Saksena's (1980) argument that case role notions cannot explain the semantic differences behind case markings in Hindi, where causes in causative constructions are marked by the dative/accusative morpheme *-koo* or by the instrumental *-see*. Saksena introduces a notion of affectedness to explain this; *-koo* always marks NPs affected by the verb activity in an event, whether or not that NP is indirect object, patient, or experiencer. Van Voorst finds that Saksena's affectedness primitive patterns out the same way as his own involvement system, making the same predictions regarding unergative intransitive as does Van Voorst's involvement analysis.

In chapter 7, van Voorst compares event structure with various proposals by Reichenbach (1947), Hornstein (1981), and Bouchard (1947) regarding tense interpretation of sentences, and he attempts to combine his event structure model with Reichenbach's framework. In his concluding chapter, van Voorst considers implications of event structure theory for the notion of GOAL as a thematic role, as implicit in Gruber (1976) and Jackendoff (1975), and discusses the role of prepositional phrases with event structure.

DISCUSSION

Let us look in detail at a few aspects of van Voorst's notion of event structure. The distinction between verbs of activity, verbs of achievement, and verbs of accomplishment is central to his theory. Not a few questions arise in connection with the definitions of these.

On page 20 he states: "Achievements like states can be distinguished from the other two verb types in that they do not allow continuous tenses, as demonstrated in (8) *He was reaching the top". Of course, the example is less than convincing here, since "He was reaching the top, when an eagle made an unfriendly swoop at him" is fine. Similarly, Dowty (p.21) is quoted as maintaining that "*Know the answer!" is ungrammatical, i.e. the acceptability of the imperative is one of Dowty's tests for the state–event distinction. Again, though van Voorst states that "Dowty's test distinguishes activity verbs from other verbs rather than states from events, if we follow the definition for these notions given under my analysis" (p.21), he doesn't say whether he agrees or disagrees with the choice of data; plainly, making a slight modification in the sentence produces the very natural imperative "Know the answers!"

The author observes (p. 41) that

> ...we will not find achievement verbs with particles or directional PPs either, if the above is correct. These verbs, however, may occur with a particle, but then, interestingly, their meaning changes from an achievement verb into an activity that is in addition, an accomplishment.
>
> "He saw me out" is not an achievement, but it denotes the activity of the entity denoted by the subject NP. "He saw many paintings in New York" refers to the perception alone.

But note (101):

(101) The dentist saw 20 patients today

Certainly this is not restricted to perception, being in fact ambiguous. So here we have *see* acting as an "activity", albeit perhaps not an "accomplishment", without there being any particle or directional PP.

Likewise, the perception verb *hear*:

(102) a. He heard me
b. He heard me out

Sentence (102b) does seem to have "not just perceiving something" but "acting at the same time", though much less so than does the sentence *He saw me out*.

Attempting to classify verbs in terms of the semantic typology proposed by van Voorst encounters another problem. When achievements and accomplishments are used in a progressive in English, or e.g. an imparfait in French, don't they have both stative and activity characteristics? Certainly, the pair of sentences in (46)

(46) a. He made a chair
b. He was making a chair (p.37)

are a test of the nature of the structure [make a chair] but they also illustrate that one needs both the frame and the appropriate filler in order to get a telic construction.

In (59a).
(59a) He wrote the comments (p.136)

van Voorst maintains that the semantic feature of involvement determines that because the direct object NP is the object of termination, the sentence implies that the subject entity creates the comments. In (59b),

(59b) He wrote the comments down (p.136)

the event ends in the state of the comments being *down* (on paper), thus implying that the writer didn't create the comments himself. Now, if someone writes a slogan on a wall, and it may be a well–known one such as "semper fi", he might be asked whether he is the one who "wrote that". And similarly, he might deny that he "wrote that". The distinction introduced by the particle seems to work with "writing down" on paper, but not, for example, on walls, since "I didn't write it on" seems to display a rather unnatural deletion from "I didn't write it on the wall". Quite obviously, the meaning is that he didn't write these words on the wall. The statement doesn't (necessarily) address itself to the question of whether he wrote (created) it.

Another example of this kind of thing might be where a statement could be written by hand in a book and even identified there, where an inquiry as to its authorship would not be phrased as "Did you write down?" but rather "Did you write that?" The thing written might for example be a well-known quotation often attributed to a historical personage, as in "A Penny Saved is a Penny Earned". The same kind of difference seems to appear with verbs like, e.g. *remain* and *stay*, in phrases like *remain at the hotel* +/– time expression, *stay at the hotel* +/– time expression, where a sentence containing the time expression seems to be interpretable as a kind of event.

One might take issue with certain aspects of van Voorst's description of the nature of events and entities involved in events. He defines an event as follows: (8) "An event takes place and it is located in the [+involved] entity(ies) that make up its structure: the subject NP and/or the direct object NP." (p.124) Notice that this statement makes use of syntax in the definition of an event. It also makes use of the semantic notion "takes place", which is rather vague.

The definition of the delimiters of events, objects of origin/actualization and termination, is unfortunately based on real physical objects:

> What is different from most approaches is that these notions are related to objects in reality. Events are delimited by objects in space and not by the beginning and end of a time segment. (p.28)

Attempting to relate language to objects in reality runs into problems of reference. Nonexistent objects such as *the philosopher's stone* or *a purple dragon* or the entity mentioned in Russell's sentence *The King of France is bald* do not then fit in the theory, and yet they occur in sentences with direct objects and subjects: "Scotland Yard ruled out the local hen's teeth as the cause of the mysterious mark on the tree." Van Voorst is very explicit on this point: "It is the object in physical space that the object of origin or actualization has established a relation with: the event starts out from the object of origin..."(p.42) This would seem to exclude abstract nouns from the theory, yet they also serve as objects of actualization and termination. M.J. Cresswell (1985:99) writes

> In this book I am interested only in modeling the way natural language talks about the world. In natural language we talk about many things that give lots of philosophers the willies. We talk not only of concrete individuals but also of events, processes, states, numbers, conditions, tendencies, and points of view.

By a natural extension van Voorst's definitions would also seem to exclude all manner of verbs such as "expect", "recommend", "forget", "remember", "deny", and "save", at least in many of their uses. They can all be used with direct objects in sentences which do not satisfy the definition provided by van Voorst. In order to make them workable, I think that his definition of objects (whether of origin, actualization, or termination) would need to be rewritten so as to accept various kinds of abstractions. As Cresswell (1985:164) says,

> In saying that everything is a thing, I am being unabashadly Platonistic. It seems to me that, in dealing with the semantics of natural language, this is right. For I think that we do speak as if all these things existed, and I follow Emmon Bach (1983) in assuming that the illuminating way to study natural language is to ask what sorts of entities it presupposes...

Furthermore, how does van Voorst's definition in terms of objects in reality fit with the use of questions and the negative? On one reading, there is no object of termination in a sentence like (103):

(103) They didn't paint a picture

Moreover, there can be interesting reversals of sense when the negative is combined with some time expressions, as in (104):

(104) a. Bill didn't write his essay
b. Bill didn't write his essay for an hour

There are a number of other sentence types that do not fit within van Voorst's theory. According to his Event Structure Correspondence Rule, object of termination are realized as direct objects. He provides no other means for the production of direct objects, and seems to accept a loose, informal idea of what constitutes a direct object. Although in allowing for derived subjects of unaccusatives, for example, he is admitting levels of structure, he doesn't discuss the structure V NP where NP is apparently in a role that would have to be characterized differently, e.g. *fly United Airlines, play the Lions, British Air buys Boeing* (where the meaning is *...Boeing airplanes*). Accounting for these examples would necessarily bring in some other version of semantic roles. One wonders how van Voorst would handle these; certainly the theory would have to include some additional rules of deletion or interpretation.

The author puts forward his theory as being a part of universal grammar. One might ask how we are to account for French constructions like *payer le repas, chercher un livre, demander le stylo*, where we see entities realized as direct object NPs; in English these would be realized as PrepPs. These examples come from one of the languages Whorf referred to as Standard Average European; already there are differences that are difficult to handle with the theory. The determination of what constitutes an object of termination would have to take into account conceptual systems different from our own. Consider "He bought Bill and Sandra an airline ticket and flew them back." In some languages, of course, one just cannot fly *people* anywhere.

Van Voorst also says, "My notion of object of termination is restricted to the direct object. This one and the subject NP are the only phrase categories that influence aspectual readings of sentences." (p.35) On p.41, though, we are told that particles and directional PPs also denote the state that makes the entity denoted by the direct object an object of termination. The addition of these two categories introduces certain complexities into the theory. The use of particles to express state as a kind of completer is only one of the ways particles function in English; cf. the following:

(105) a. He broke me up
b. *He broke me

(106) a. They broke up the street
b. *They broke the street

(105a), of course, has an entirely different meaning than (105b), rather than simply indicating completion. Likewise with (106), where (b) is ungrammatical

Similarly, in French reflexives like (107),

(107) Il se brosse les dents

one can wonder which is the object of termination, *se* or *les dents?*

The state that is described as a "tail" in resultative constructions is not really an object, as indicated in the author's description on p. 136. In resultatives, it is not in fact the direct object which is in a certain sense the object of termination of an event. It is rather the state that results from the combination of these elements that could be said to be the object of termination of such an event. But these constructions are much more complex than his Event Structure can deal with.

The distinction between events and statives is crucial to van Voorst's theory. Since stative constructions are deemed to have no objects of termination, certain data potentially problematical for event structure are accounted for if it can be shown that they are in fact constituents of stative constructions.

In discussing subject NPs in intransitive constructions, van Voorst runs up against some problematical data.

(9) a. Dit mes smijdt goed
b. This knife cuts well. (p.47)

but the transitive counterpart in (d) is ungrammatical:

(12) a. *Dit mes snijdt het vlees goed
b. This knife cuts the meat well. (p.48)

To solve this, he argues that such sentences as (12b) above are stative and do not therefore constitute a counterexample to the notion that the Dutch subject denotes an object of termination. By van Voorst's definition, of course, only events are delimited by an object of origin (or object of actualization in English), or by an object of termination.

The author gives the following test to indicate "the criterion of countability".

(42) a. *There is a having of John of a book.
b. *There is an owning of John of a book.

These sentences are ungrammatical for reasons other than he gives. The ungrammaticality of the above two sentences demonstrates little; putting his other sentence types in this frame produces no better sentences.

(108) a. *There is a drawing of Bill of the circle
b. *There is a reaching of Bill of the top
c. *There is a walking of Bill

His reflexive rule (p.112) predicts that reflexivization of stative verbs is impossible. However, his example here of a grammatical sentence (62b),

(62b) Cette femme se domine facilement
That woman can be dominated easily. (p.114)

certainly has aspects of stativity relating to his definition of that property, where he says "An object is in a state when it has a contingent property or stands in a contingent relation of some kind".(p.104) The definition is taken from Nordenfelt (1977). By contingent relation Nordenfelt means: "a property (relation) which does not belong to its bearer as a logical consequence of the simple fact that the bearer is an object of a particular kind." (p.104) Van Voorst explains: "Examples of these properties or relations include existence, location, classmembership, quality, possession." (p.104) But it would seem that a sentence like "La banque se trouve dans la rue Voltaire" is an example of a locational use, thus stative, yet reflexive.

On p. 103 he says "Stative verbs cannot appear in the progressive form". As an example of this prohibition he cites (35a):

(35a) *He is having a red car.

But he provides no principled way to distinguish between (35a) and sentences such as (109):

(109) a. He is having problems.
b. He is having a bad dream.

Furthermore, he seems to contradict himself, since he classifies the verb *own* as an event verb. But by some of his criteria, including that of acceptability with the progressive form, *own* is more appropriately analyzed as being stative. Yet *own* passivizes; passivization, according to van Voorst, requires an object of origin or actualization.

There is a failure to understand the compositional nature of these phenomena. The author defines *to swim* as an event because it "take place", whereas *to have a swim* does not, as supposedly shown in (38a–b):

(38) a. The diver swam effortlessly in the lake.
b. *I had effortlessly a swim in the lake.

He explains thus:

> Sometimes the differences between states and events are hard to perceive. Often it is after the insertion of adverbs of the class *with a lot of pleasure* etc. that we can see whether we are dealing with a state or an event... *To own* occurs in constructions expressing an event; *to have* does not when we follow my approach. (p.104)

He's patently wrong in trying to maintain that (38b) is a state rather than an event. Obviously his "effortlessly" test is not workable. Yet he takes it as conclusive proof of the stativity of "to have a swim", in spite of the obvious evidence in data like (110):

(110) a. ?Bill has a swim
b. Bill has a swim, then he plays a round of golf.
c. Bill is having a swim.

In (a) sentence when used alone has a funny sound, unlike in (d):

d. Bill has a car.

If (9a) were stative, it should sound as good as (110d). The author himself provides us some explanation for this; later in the book he mentions that the present tense in English cannot be used to talk about activities going on at the moment of speech. They *may* be used for customary activities, and (110b) above is probably more acceptable because it more clearly implies custom.

Van Voorst himself provides another argument against considering *to have a swim* stative, in his discussion of the value of count adverbs as a test for distinguishing between (a) and (b) below on the basis of event versus stative. He discounts the count adverb test, as well as the definition of events as things that "take place", because of his *effortlessly* test.

(43) a. He swam in the lake 3 times while in the park
b. He had a swim in the lake 3 times while in the park

He should rather have reached the conclusion that the count adverb does not distinguish because both (a) and (b) are events! Comparative evidence shows that: try translating these two sentences into French!

On page 153 he says: The English present tense cannot express accomplishment ... nor nonaccomplishment if it is not in the progresive form." This conflicts with his analysis of *own* as not being stative (pp.98–100). "He owns that green car" can certainly "mean that the event is happening at the moment of speech." Secondly, what about scene–settings? It is true, of course, that these things occur in discourses as a kind of abstraction, but they do describe what is happening *within* the story, at least.

(111) a. A writer phones a politician and says..."
b. A guy comes into the office and says..."

Van Voorst seems to realise that more needs to be said about this question of present tense use, for he says in a note on p.162:

> The present tense is used sometimes to describe an ongoing event. This is the case in (a), which is taken from Goldsmith and Woestschlager 1982.
>
> (a) And now I take the flask of sodium nitrate and pour the contents into this beaker; now I light the Bunsen burner and heat it to a boil.
>
> These sentences can be analyzed, however, as expressing a state rather than an event.

Once again, when faced with data problematical to his hypothesis, van Voorst uses stativity as a convenient solution. But these putatively stative sentences nonetheless have the same syntactic form as do events, with their objects of origin/actualization and object of termination. Little discipline is left in the theory if it so easily allows for the exclusion of intractable data.

The author avoids a considerable problem in connection with statives by excluding generics from consideration in the theory. But we must ask ourselves: can't generic statements ascribe non–contingent properties, thus by definition possessing a stative nature in some sense? Here again, we have a situation where constructions display subjects and objects paralleling many of those appearing in event sentences. Van Voorst emphasizes on more than one occasion that his approach to semantics "aims at finding semantic primitives that are relevant to grammar, or that tie in with grammatical phenomena." (p.139) His analysis of event structure and statives is particularly open to criticism with regard to this criterion of relevance to grammar.

His attempt to give a unified account of the French reflexive using the notion of event structure is only partially successful. The proposal he makes is to analyze the French reflexive as containing no object of origin, only what he calls an "ultimate reference point", and sometimes an object of termination. The ultimate reference point is necessary for van Voorst because he wants to find some entity to represent things as different as are the subjects and objects in sentences as disparate as (47a–c):

(112) a. Je me lave
b. Je m'irrite
c. La maison se construit. (p.107)

There are a number of problems here. Contrary to what he says, as in "There is always the meaning content introduced by each reflexive that there is an unspecified object of origin, whatever its exact nature may be." (p.113) This is fine, for sentences like *Le lait s'aigrit* or *Le ballon se gonfle*, but he's not willing to acknowledge that it doesn't work for *Paul s'est levé,* where *Paul* would seem to be both an object of origin and of actualization. Since he doesn't mention objects of actualization in connection with the French reflexive, he's apparently not trying to skirt this issue by introducing the origin vs. actualization distinction, as he does in chapter 2, in discussing the nature of English and Dutch subjects. In any case, one finds it hard to accept his "unifying account" of the reflexive. The phenomenon is simply more complex than he is willing to admit. The French reflexive data displays three rather distinct patterns:

a. where subject NP is naturally viewed as an agent
b. where subject NP seems not to be an agent
c. where subject is in a focus role

Now, (b) and (c) might plausibly be combined in one category in his "ultimate reference point", but putting (a) in the same category greatly reduces its explanatory significance.

In his chapter on Tense, van Voorst uses the tense interpretation of the French reflexive as independent evidence for his hypothesis that the reflexive lacks an object of origin. After analyzing the French preposition *en* used with a time expression (*in* + time) as an "adverb that refers to the end of an event", he produces two reflexives in sentences containing *en* and *dans* (160):

(57) a. Il se lavera en 5 minutes
He will wash in 5 minutes
= it will take him 5 minutes to wash

b. Il se lavera dans 5 minutes
He will wash in 5 minutes
= He will start washing himself 5 minutes from now

These two seem at first to be counterexamples since according to his rule of reflexivization, "If there is no object of origin, an adverb of the type *in X minutes* can never lead to the interpretation that the event begins after a certain time..."(p. 159) These recalcitrant data are dealt with thus: the adverb *dans X minutes* is analyzed as an adverb of the type that attaches to the event as a whole, such as *yesterday*, rather than one that attaches to the event structure of a sentence. Such an interpretation may be plausible, but it is weakened by the argument van Voorst brings to support it. Comparing the following data,

(60) a. Dans une heure, il mangera encore
He will still eat an hour from now
b. Dans une heure, il se levera encore
He will still wash himself an hour from now. (p.160)

he says, "the adverb *encore* implies that the event is going on before the point in time denoted by the adverb *dans une heure*." (p.160) In English the adverb *in an hour* is said to refer to the very beginning, or the end, of the event:

(61) a. *He will still drink in an hour
b. *He will still wash himself in an hour

(61a–b) are supposed to be taken as ungrammatical because the use of both *still* and *in an hour* implies that the event is going on before the point in time expressed by *in an hour*. The different grammatical judgments between French and English here are rather meaningless. *Encore* is a particularly poor choice of data to support his hypothesis, since, as is well–known, the French word *encore* is ambiguous, having as it does the two meanings *still* and *again*. One should also question van Voorst's statement that in English, "Usage of the adverb *in an hour* refers to the very beginning, or the end, of the events."(p.161) One might object that, at least with some verbs, it is not only the end of the event that is expressed, but the event and its duration:

(113) a. He ate that whole pie in 5 minutes
b. He painted a picture in five minutes.

I conclude my critique of the substance of Van Voorst's book with some general remarks concerning his methodology and argumentation.

As is often the case, the choice of data appears to be selective. The kinds of verbs discussed tend to be ones that involve physical actions, to the exclusion of a whole range of other verb types that don't seem to fit neatly in the theory. The extensive analysis of French reflexives proves interesting and relevant, but perhaps less important than would be a consideration of how the event vs. situation distinction in the French usage of imparfait and passé composé relates to events vs. states in the author's theory.

Van Voorst's definition of the event in terms of objects in reality encounters numerous difficulties, as mentioned in the discussion above, and would require a reformulation of the kinds of entities allowed. As Cresswell (1985:69) asks,

> What is a thing? Obviously, anything at all is a thing. I do not mean only physical objects but anything our language can talk about: numbers, sets, properties, events, attitudes, attitudes of mind, and the like.

Similarly, van Voorst's definition of syntactic subjects and direct objects ignores the complex nature of these phenomena. They are used in a somewhat simplistic manner as a central part of the Event Structure Correspondence framework, with little attention devoted to the many problematical aspects of their nature and description.[1]

One wonders why there is no reference to the work of Kuno on the primitive of empathy and its grammatical effects, and no mention of Barwise and Perry's work on Situation Semantics, where the notions of event and situation are rather extensively studied.

In regard to linguistic argumentation, his notion of partial realization of a linguistic phenomenon would merit considerable skepticism, allowing as it does differing degrees of applicability:

> Every nonstative sentence is a complete or partial realization of event structure. Reflexivization represents a partial realization of Event Structure, just like unaccusatives. (p.118)

The lack of definite determining principles of applicability would seem to restrict opportunities of falsification of the theory.

The many faults of this book notwithstanding, it is still a worthwhile purchase for anyone interested in grammatical theory. Van Voorst gives the reader a wealth of pertinent and interesting data, as well as many useful references to theories of other researchers. His discussions of areas such as unaccusativity shed light on important issues, supply many nice tests for judging various primitives and properties, and even, in limited areas, seem to provide convincing proof of his claims. He deserves praise for his innovative proposal to base a theory of eventness on the physical world rather than the dimension of time. He is courageous in giving us a whole series of precise predictions of grammatical phenomena predicated on his theory.[2]

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[1] Cf. Miller (1986) and Perlmutter (1982) for discussion of the nature of subjects and objects.

[2] Herewith, for the convenience of the reader, a list of a number of the author's predictions:

– Accomplishment always comes with a direct object that is not a mass noun or an indefinite plural, i.e. it always comes with an individuated NP. Different case forms, morphemes or determiners may influence the nature of NPs in terms of individuation (p.44).

– A subset of middle subjects is derived, namely those that can appear in a construction expressing accomplishment. Middles that do not occur in such a construction are predicted to have a nonderived subject ... the middle–subject in the former case denotes an object of termination, and the subject in the latter case an object of actualization (p.91).

– A construction can be passivized when it contains an object of origin or actualization (p. 102).

– The reflexive in French is possible with almost any verb including perception and recipient verbs (p.109).

– It is quite common to consider intransitivization a process that depends on the lexical idiosyncracies of transitive verbs. This is implicit in studies done within the Lexical Functional Grammar framework

Some of the difficulties described in this review can doubtless be explained as a matter of presentation; the essence of the theory does seem to be worth pursuing. In particular, correlative evidence from many languages of different types would support the theory, and the book provides, implicitly, a whole program for further research in these ideas in other languages. Van Voorst's work represents a stimulating contribution to linguistic theory.

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such as Bresnan (1982), which was discussed in Chapter 2. My approach does not predict unergative intrasitive using verb idiosyncracies (p. 128).

– Unaccusative like unergative intransitive is predictable on the base of Involvement Semantics. This means that it is not necessary to take refuge to lexical specification (p.129).

– An achievement verb combined with a resultative predicate will never end up having the involvement pattern of causative verbs like *to break*, etc. (131).

– If all sentences in a language must contain an affected role ... it cannot have stative transitive and intransitive constructions. And if a language cannot have [–inv] direct objects, it cannot have transitive achievement verbs and transitive statives (p. 141).

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